Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Restoring Internet Freedom	)	WC Docket No. 17-108

DECLARATORY RULING, REPORT AND ORDER, AND ORDER

Adopted: December 14, 2017 **Released: January 4, 2018**

By the Commission: Chairman Pai and Commissioners O'Rielly and Carr issuing separate statements; Commissioners Clyburn and Rosenworcel dissenting and issuing separate statements.

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I. INTRODUCTION

1. Over twenty years ago, in the Telecommunications Act of 1996, President Clinton and a Republican Congress established the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet . . . unfettered by Federal or State regulation."[1] Today, we honor that bipartisan commitment to a free and open Internet by rejecting government control of the Internet. We reverse the Commission's abrupt shift two years ago to heavy-handed utility-style regulation of broadband Internet access service and return to the light-touch framework under which a free and open Internet underwent rapid and unprecedented growth for almost two decades. We eliminate burdensome regulation that stifles innovation and deters investment, and empower Americans to choose the broadband Internet access service that best fits their needs.

2. We take several actions in this Order to restore Internet freedom. First, we end utility-style regulation of the Internet in favor of the market-based policies necessary to preserve the future of Internet freedom. In the 2015 *Title II Order*, the Commission abandoned almost twenty years of precedent and reclassified broadband Internet access service as a telecommunications service subject to myriad regulatory obligations under Title II of the Communications Act of 1934, as amended (the Act).[2] We reverse this misguided and legally flawed approach and restore broadband Internet access service to its Title I information service classification. We find that reclassification as an information service best comports with the text and structure of the Act, Commission precedent, and our policy objectives. We thus return to the approach to broadband Internet access service affirmed as reasonable by the U.S. Supreme Court.[3] We also reinstate the private mobile service classification of mobile broadband Internet access service and return to the Commission's definition of "interconnected service" that existed prior to 2015. We determine that this light-touch information service framework will promote investment and innovation better than applying costly and restrictive laws of a bygone era to broadband Internet access service. Our balanced approach also restores the authority of the nation's most experienced cop on the privacy beat—the Federal Trade Commission—to police the privacy practices of Internet Service Providers (ISPs).

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[1] 47 U.S.C. § 230(b)(2). *See generally* Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. § 151 *et seq.*) (1996 Act).

[2] *See Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) (*Title II Order*).

[3] *See Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (*Brand X*).

3. Next, we require ISPs to be transparent. Disclosure of network management practices, performance, and commercial terms of service is important for Internet freedom because it helps consumers choose what works best for them and enables entrepreneurs and other small businesses to get technical information needed to innovate. Individual consumers, not the government, decide what Internet access service best meets their individualized needs. We return to the transparency rule the Commission adopted in 2010[4] with certain limited modifications to promote additional transparency, and we eliminate certain reporting requirements adopted in the *Title II Order* that we find to be unnecessary and unduly burdensome.

4. Finally, we eliminate the Commission's conduct rules. The record evidence, including our cost-benefit analysis, demonstrates that the costs of these rules to innovation and investment outweigh any benefits they may have. In addition, we have not identified any sources of legal authority that could justify the comprehensive conduct rules governing ISPs adopted in the *Title II Order*. Lastly, we find that the conduct rules are unnecessary because the transparency requirement we adopt, together with antitrust and consumer protection laws, ensures that consumers have means to take remedial action if an ISP engages in behavior inconsistent with an open Internet.

5. Through these actions, we advance our critical work to promote broadband deployment in rural America and infrastructure investment throughout the nation, brighten the future of innovation both within networks and at their edge, and move closer to the goal of eliminating the digital divide.

II. BACKGROUND

6. Since long before the commercialization of the Internet, federal law has drawn a line between the more heavily-regulated common carrier services like traditional telephone service and more lightly-regulated services that offer more than mere transmission. More than fifty years ago, the Commission decided *Computer I*, the first of a series of decisions known as the *Computer Inquiries*,[5] which, in combination, created a dichotomy between "basic" and "enhanced" services.[6] In 1980's *Second Computer Inquiry*, the Commission established that basic services offered "pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information"[7] and were "regulated under Title II of the [Communications] Act."[8] Enhanced services, by contrast, were "any offering over the telecommunications network which is more than a basic transmission service. In an enhanced service, for example, computer processing applications are used to act on the content, code, protocol, and other aspects of the subscriber's information."[9] Unlike basic services, the Commission found that "enhanced services should not be regulated under the Act."[10]

7. Just two years later, the federal courts would draw a similar line in resolving the government's antitrust case against AT&T. The Modification of Final Judgment (MFJ) of 1982 distinguished between "telecommunications services," which Bell Operating Companies could offer when

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[4] *See Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905, 17972-80, 17981, paras. 124-35, 137 (2010) (*Open Internet Order*).

[5] *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services*, Notice of Inquiry, 7 FCC 2d 11 (1966).

[6] *Amendment of Section 64.702 of the Commission's Rules and Regulations* (*Second Computer Inquiry*), Docket No. 20828, Final Decision, 77 FCC 2d 384, 420, para. 97 (1980) (*Computer II Final Decision*).

[7] *Id*. at 420, para. 96.

[8] *Id*. at 428, para. 114.

[9] *Id*. at 420, para. 97.

[10] *Id*. at 428, para. 114.

"actually regulated by tariff,"[11] and "information services," including "data processing and other computer-related services"[12] and "electronic publishing services,"[13] which Bell Operating Companies (BOCs) were prohibited from offering under the terms of that court decision.[14] The Telecommunications Act of 1996's (the 1996 Act) "information service" definition is based on the definition of that same term used in the MFJ, which governed the Bell Operating Companies after the breakup of the Bell system.[15]

8. In the 1996 Act, intended to "promote competition and reduce regulation,"[16] Congress drew a line between lightly regulated "information services" and more heavily regulated "telecommunications services."[17] It also found that the "Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation"[18] and declared it the policy of the United States to "promote the continued development of the Internet and other interactive computer services and other interactive media" and "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[19] The 1996 Act went on to define "interactive computer service" to include "any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet . . . ."[20]

9. For the next 16 years, the Commission repeatedly adopted a light-touch approach to the Internet that favored discrete and targeted actions over pre-emptive, sweeping regulation of Internet service providers. In the 1998 *Stevens Report*, the Commission comprehensively reviewed the Act's definitions as they applied to the emerging technology of the Internet and concluded that Internet access service was properly classified as an information service.[21] The *Stevens Report* also found that subjecting Internet service providers and other information service providers to "the broad range of Title II constraints," would "seriously curtail the regulatory freedom that the Commission concluded in *Computer II* was important to the healthy and competitive development of the enhanced-services industry."[22]

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[11] *U.S. v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 228-29 (D.D.C. 1982) (*MFJ Initial Decision*), *aff'd sub nom. Maryland v. U.S.*, 460 U.S. 1001 (1983).

[12] *Id*. at 179.

[13] *Id*. at 180.

[14] *Id*. at 228.

[15] *Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 21954, para. 99 (1996) (*Non-Accounting Safeguards Order*); *see also, e.g.*, H.R. Conf. Rep. No. 104-458 at 126 (Jan. 31, 1996) ("'Information service' and 'telecommunications' are defined based on the definition used in the Modification of Final Judgment."); *see also Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11514, para. 28 (1998) (*Stevens Report*) (citing *MFJ Initial Decision*, 552 F. Supp. at 226-32).

[16] Preamble, Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

[17] 47 U.S.C. § 153(24), (53).

[18] 47 U.S.C. § 230(a)(4).

[19] 47 U.S.C. § 230(b)(1), (2).

[20] 47 U.S.C. § 230(f)(2).

[21] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11536, para. 73 (1998) (*Stevens Report*).

[22] *Id*. at 11524, para. 46.

10. In the 2002 *Cable Modem Order*, the Commission classified broadband Internet access service over cable systems as an "interstate information service,"[23] a classification that the Supreme Court upheld in June 2005 in the *Brand X* decision.[24] There was no dispute that at least some of the elements of Internet access met the definition of "information services," and the Court rejected claims that "[w]hen a consumer goes beyond those offerings and accesses content provided by parties other than the cable company" that "consumer uses 'pure transmission.'"[25] To the contrary, the Court found "reasonable" "the Commission's understanding of the nature of cable modem service"—namely, that "[w]hen an end user accesses a third party's Web site" that user "is equally using the information service provided by the cable company that offers him Internet access as when he accesses the company's own Web site, its e-mail service, or his personal Web page," citing as examples the roles of Domain Name System (DNS) and caching.[26]

11. In 2004, then-FCC Chairman Michael Powell announced four principles for Internet freedom to further ensure that the Internet would remain a place for free and open innovation with minimal regulation.[27] These four "Internet freedoms" include the freedom to access lawful content, the freedom to use applications, the freedom to attach personal devices to the network, and the freedom to obtain service plan information.[28]

12. In the 2005 *Wireline Broadband Classification Order*, the Commission classified broadband Internet access service over wireline facilities as an information service.[29] At the same time, the Commission also unanimously endorsed the four Internet freedoms in the *Internet Policy Statement*.[30] The *Internet Policy Statement* announced the Commission's intent to "incorporate [these] principles into its ongoing policymaking activities" in order to "foster creation, adoption and use of Internet broadband content, applications, services and attachments, and to ensure consumers benefit from the innovation that comes from competition."[31]

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[23] *See Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4802, para. 7 (2002) (*Cable Modem Order*).

[24] *Brand X*, 545 U.S. 967.

[25] *Id*. at 998.

[26] *Id*. at 998-1000.

[27] Michael K. Powell, Chairman, FCC, Preserving Internet Freedom: Guiding Principles for the Industry, Remarks at the Silicon Flatirons Symposium (Feb. 8, 2004), https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf (*Powell Speech*).

[28] *Id.* at 5.

[29] *See Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al*., CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (*Wireline Broadband Classification Order*), *aff'd Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

[30] *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities et al*., GN Docket No. 00-185, CC Docket Nos. 02-33, 01-33, 98-10, 95-20, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*).

[31] *Id.* at 14988, para. 5. The Commission did this, for example, by incorporating such principles in its rules governing certain wireless spectrum. *See Service Rules For the 698-746, 747-762 and 777-792 MHz Bands et al*., WT Docket No. 06-150 et al., Second Report and Order, 22 FCC Rcd 15289, 15361, 15365, paras. 194, 206 (2007).

13. In the 2006 *BPL-Enabled Broadband Order*, the Commission concluded that broadband Internet access service over power lines was properly classified as an information service,[32] and in the 2007 *Wireless Broadband Internet Access Order*, the Commission classified wireless broadband Internet access service as an information service, again recognizing the "minimal regulatory environment" that promoted the "ubiquitous availability of broadband to all Americans."[33] The Commission also found that "mobile wireless broadband Internet access service is not a 'commercial mobile radio service' as that term is defined in the Act and implemented in the Commission's rules."[34]

14. In the 2008 *Comcast-BitTorrent Order*, the Commission sought to directly enforce federal Internet policy that it drew from various statutory provisions consistent with the *Internet Policy Statement*, finding certain actions by Comcast "contravene[d] . . . federal policy" by "significantly imped[ing] consumers' ability to access the content and use the applications of their choice."[35] In 2010, the U.S. Court of Appeals for the D.C. Circuit rejected the Commission's action, holding that the Commission had not justified its action as a valid exercise of ancillary authority.[36]

15. In response, the Commission adopted the 2010 *Open Internet Order*, where once again the Commission specifically rejected Title II-based heavy-handed regulation of broadband Internet access service.[37] Instead, the *Open Internet Order* relied on, among other things, newly-claimed regulatory authority under section 706 of the Telecommunications Act to establish no-blocking and no-unreasonable-discrimination rules as well as a requirement that broadband Internet access service providers "publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services."[38]

16. In 2014, the D.C. Circuit vacated the no-blocking and no-unreasonable-discrimination rules adopted in the *Open Internet Order*, finding that the rules impermissibly regulated broadband Internet access service providers as common carriers,[39] in conflict with the Commission's prior determination that broadband Internet access service was not a telecommunications service and that mobile broadband Internet access service was not a commercial mobile service.[40] The D.C. Circuit nonetheless upheld the transparency rule,[41] held that the Commission had reasonably construed section

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[32] *See United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, WC Docket No. 06-10, Memorandum Opinion and Order, 21 FCC Rcd 13281 (2006) (*BPL-Enabled Broadband Order*).

[33] *See Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5902, para. 2 (2007) (*Wireless Broadband Internet Access Order*).

[34] *Id*. at 5916, para. 41.

[35] *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management*, File No. EB-08-IH-1518, WC Docket No. 07-52, Memorandum Opinion and Order, 23 FCC Rcd 13028, 13052, 13054, paras. 43, 45 (2008) (*Comcast-BitTorrent Order*).

[36] *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010) (*Comcast*). Among other things, the court held that section 706 of the 1996 Act could not serve as the source of direct authority to which the Commission's action was ancillary because the Commission was bound in *Comcast* by a prior Commission determination that section 706 did not constitute a direct grant of authority. *Id*. at 658-59.

[37] *Open Internet Order*, 25 FCC Rcd at 17972-80, 17981, paras. 124-35, 137.

[38] *Id*. at 17992 (Appendix A).

[39] *Verizon v. FCC*, 740 F.3d 623, 655-58 (D.C. Cir. 2014) (*Verizon*).

[40] *Id*. at 650.

[41] *Id*. at 635-42.

706 of the Telecommunications Act as a grant of authority to regulate broadband Internet access service providers, and suggested that no-blocking and no-unreasonable-discrimination rules might be permissible if Internet service providers could engage in individualized bargaining.[42]

17. Later that year, the Commission embarked yet again down the path of rulemaking, proposing to rely on section 706 of the 1996 Act to adopt enforceable rules using the D.C. Circuit's "roadmap."[43] But in November 2014, then-President Obama called on the FCC to "reclassify consumer broadband service under Title II of the Telecommunications Act."[44] Three months later, the Commission shifted course and adopted the *Title II Order*, reclassifying broadband Internet access service from an information service to a telecommunications service,[45] and reclassifying mobile broadband Internet access service as a commercial mobile service.[46] The Commission also adopted three bright-line rules prohibiting blocking, throttling, and paid-prioritization, as well as a general Internet conduct standard and "enhancements" to the transparency rule.[47] In 2016, a divided panel of the D.C. Circuit upheld the *Title II Order* in *United States Telecom Association v. FCC*, concluding that the Commission's classification of broadband Internet access service was permissible under *Chevron* step two.[48] The D.C. Circuit denied petitions for rehearing of the case *en banc*,[49] and petitions for *certiorari* remain pending with the Supreme Court.[50]

18. In May 2017, we adopted a *Notice of Proposed Rulemaking* (*Internet Freedom NPRM*),[51] in which we proposed to return to the successful light-touch bipartisan framework that promoted a free and open Internet and, for almost twenty years, saw it flourish. Specifically, the *Internet Freedom NPRM* proposed to reinstate the information service classification of broadband Internet access service. The *Internet Freedom NPRM* also proposed to reinstate the determination that mobile broadband Internet access service is not a commercial mobile service.[52] To determine how to best honor the Commission's commitment to ensuring the free and open Internet, the *Internet Freedom NPRM* also proposed to re-evaluate the Commission's existing rules and enforcement regime to analyze whether *ex ante* regulatory

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[42] *See, e.g.*, *id*. at 657 (quoting *Cellco Partnership v. FCC*, 700 F.3d 534, 549 (D.C. Cir. 2012)).

[43] *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Notice of Proposed Rulemaking, 29 FCC Rcd 5561 (2014) (*2014 Notice*).

[44] President Obama, Statement on Net Neutrality (Nov. 10, 2014), https://obamawhitehouse.archives.gov/the-press-office/2014/11/10/statement-president-net-neutrality.

[45] *Title II Order*, 30 FCC Rcd 5601.

[46] *Id.* at 5778, para. 388.

[47] *Id*. at 5607-09, paras. 15-24.

[48] *United States Telecom Ass'n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016) (*USTelecom*).

[49] *United States Telecom Ass'n v. FCC*, 855 F.3d 381, 382 (D.C. Cir. 2017) (Srinivasan, J., and Tatel, J., concurring in the denial of rehearing *en banc*) (stating that "[e]n banc review would be particularly unwarranted at this point in light of the uncertainty surrounding the fate of the FCC's Order").

[50] *See* Petition for Writ of Certiorari, *Berninger v. FCC*, 825 F.3d 674 (No. 17-498); Petition for Writ of Certiorari, *AT&T v. FCC*, 825 F.3d 674 (No. 17-499); Petition for Writ of Certiorari, *American Cable Ass'n v. FCC*, 825 F.3d 674 (No. 17-500); Petition for Writ of Certiorari, *CTIA-The Wireless Ass'n v. FCC*, 825 F.3d 674 (No. 17-501); Petition for Writ of Certiorari, *NCTA-The Internet & Television Ass'n v. FCC*, 825 F.3d 674 (No. 17-502); Petition for Writ of Certiorari, *TechFreedom v. FCC*, 825 F.3d 674 (No. 17-503); Petition for Writ of Certiorari, *United States Telecom Ass'n v. FCC*, 825 F.3d 674 (No. 17-504)..

[51] *Restoring Internet Freedom*, Notice of Proposed Rulemaking, 32 FCC Rcd 4434 (2017) (*Internet Freedom NPRM*).

[52] *Id.* at 4453, para. 55.

intervention in the market is necessary.[53] Specifically, the *Internet Freedom NPRM* proposed to eliminate the Internet conduct standard and the non-exhaustive list of factors intended to guide application of that rule.[54] It also sought comment on whether to keep, modify, or eliminate the bright-line conduct and transparency rules.[55]

19. The *Internet Freedom NPRM* prompted more comments than any other rulemaking in the Commission's history. Between release of the *Internet Freedom NPRM* and the close of the comment period on August 30, 2017, more than 22 million comments were filed in our Electronic Comment Filing System (ECFS), with even more submissions lodged during the *ex parte* period.[56] The Commission is grateful to all commenters who engaged the legal and public policy questions presented by this important rulemaking.

III. ENDING PUBLIC-UTILITY REGULATION OF THE INTERNET

20. We reinstate the information service classification of broadband Internet access service, consistent with the Supreme Court's holding in *Brand X*.[57] Based on the record before us, we conclude that the best reading of the relevant definitional provisions of the Act supports classifying broadband Internet access service as an information service. Having determined that broadband Internet access service, regardless of whether offered using fixed or mobile technologies, is an information service under the Act, we also conclude that as an information service, mobile broadband Internet access service should not be classified as a commercial mobile service or its functional equivalent. We find that it is well within our legal authority to classify broadband Internet access service as an information service, and reclassification also comports with applicable law governing agency decisions to change course. While we find our legal analysis sufficient on its own to support an information service classification of broadband Internet access service, strong public policy considerations further weigh in favor of an information service classification. Below, we find that economic theory, empirical data, and even anecdotal evidence also counsel against imposing public-utility style regulation on ISPs. The broader Internet ecosystem thrived under the light-touch regulatory treatment of Title I, with massive investment and innovation by both ISPs and edge providers, leading to previously unimagined technological developments and services. We conclude that a return to Title I classification will facilitate critical broadband investment and innovation by removing regulatory uncertainty and lowering compliance costs.

A. Reinstating the Information Service Classification of Broadband Internet Access Service

1. Scope

21. We continue to define "broadband Internet access service" as a mass-market[58] retail service by wire or radio that provides the capability to transmit data to and receive data from all or

(Continued from previous page)

[53] *Id.* at 4458, para. 70.

[54] *Id*. at 4458, para. 72.

[55] *Id.* at 4460, para. 76, 4461-64, paras. 80-91.

[56] Initial comments on the *Internet Freedom NPRM* were due on July 17, 2017. Reply comments were originally due on August 16, 2017, but the Commission granted a two-week extension until August 30, 2017, to allow parties "additional time to analyze the technical, legal, and policy arguments raised by initial commenters [and] provide the Commission with more thorough comments, ensuring that the Commission has a complete record on which to develop its decisions." *FCC Extends Restoring Internet Freedom Reply Deadline to Aug. 30*, WC Docket No. 17-108, Order, 32 FCC Rcd 6535, 6535-36, para. 2 (WCB 2017).

[57] *Brand X*, 545 U.S. at 980.

[58] By mass market, we mean services marketed and sold on a standardized basis to residential customers, small businesses, and other end-user customers such as schools and libraries. "Schools" would include institutions of higher education to the extent that they purchase these standardized retail services. For purposes of this definition,

(continued….)

substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service.[59]

22. The term "broadband Internet access service" includes services provided over any technology platform, including but not limited to wire, terrestrial wireless (including fixed and mobile wireless services using licensed or unlicensed spectrum), and satellite. For purposes of our discussion, we divide the various forms of broadband Internet access service into the two categories of "fixed" and "mobile." With these two categories of services—fixed and mobile—we intend to cover the entire universe of Internet access services at issue in the Commission's prior broadband classification decisions,[60] as well as all other broadband Internet access services offered over other technology platforms that were not addressed by prior classification orders. We also make clear that our classification finding applies to all providers of broadband Internet access service, as we delineate them here, regardless of whether they lease or own the facilities used to provide the service.[61] "Fixed" broadband Internet access service refers to a broadband Internet access service that serves end users primarily at fixed endpoints using stationary equipment, such as the modem that connects an end user's home router, computer, or other Internet access device to the Internet.[62] The term encompasses the delivery of fixed broadband over any medium, including various forms of wired broadband services (e.g., cable, DSL, fiber), fixed wireless broadband services (including fixed services using unlicensed spectrum), and fixed satellite broadband services. "Mobile" broadband Internet access service refers to a broadband Internet access service that serves end users primarily using mobile stations.[63] Mobile broadband Internet access includes, among other things, services that use smartphones or mobile-network-enabled tablets as the primary endpoints for connection to the Internet.[64] The term also encompasses mobile satellite broadband services.

23. As the Commission found in 2010, broadband Internet access service does not include services offering connectivity to one or a small number of Internet endpoints for a particular device, e.g., connectivity bundled with e-readers, heart monitors, or energy consumption sensors, to the extent the service relates to the functionality of the device.[65] To the extent these services are provided by ISPs over last-mile capacity shared with broadband Internet access service, they would be non-broadband Internet access service data services (formerly specialized services). As the Commission found in both 2010 and 2015, non-broadband Internet access service data services do not fall under the broadband Internet access

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"mass market" also includes broadband Internet access service purchased with the support of the E-rate and Rural Healthcare programs, as well as any broadband Internet access service offered using networks supported by the Connect America Fund (CAF), but does not include enterprise service offerings or special access services, which are typically offered to larger organizations through customized or individually negotiated arrangements. *See Open Internet Order*, 25 FCC Rcd at 17932, para. 45; *Title II Order*, 30 FCC Rcd at 5745-46, para. 336 & n.879.

[59] 47 CFR § 8.11(a); *Open Internet Order*, 25 FCC Rcd at 17932, para. 44; *id.* at 17935, para. 51 (finding that the market and regulatory landscape for dial-up Internet access service differed from broadband Internet access service).

[60] *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5909-10, paras. 19, 22; *Cable Modem Order*, 17 FCC Rcd at 4818-19, para. 31; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860, para. 9; *BPL-Enabled Broadband Order*, 21 FCC Rcd 13281; *Title II Order*, 30 FCC Rcd at 5746, para. 337.

[61] As the Supreme Court observed in *Brand X*, "the relevant definitions do not distinguish facilities-based and non-facilities-based carriers." *Brand X*, 545 U.S. at 997.

[62] *Open Internet Order*, 25 FCC Rcd at 17934, para. 49; *Title II Order*, 30 FCC Rcd at 5683, para. 188.

[63] *See* 47 U.S.C. § 153(34); *Open Internet Order*, 25 FCC Rcd at 17934, para. 49.

[64] We note that "public safety services" as defined in section 337(f)(1) would not meet the definition of "broadband Internet access service" subject to the rules herein given that "such services are not made commercially available to the public by the provider" as a mass-market retail service. 47 U.S.C. § 337(f)(1).

[65] *See Open Internet Order*, 25 FCC Rcd at 17933, para. 47, n.149.

service category.[66] Such services generally are not used to reach large parts of the Internet; are not a generic platform, but rather a specific applications-level service; and use some form of network management to isolate the capacity used by these services from that used by broadband Internet access services.[67] Further, we observe that to the extent ISPs "use their broadband infrastructure to provide video and voice services, those services are regulated in their own right."[68]

24. Broadband Internet access service also does not include virtual private network (VPN) services, content delivery networks (CDNs), hosting or data storage services, or Internet backbone services (if those services are separate from broadband Internet access service), consistent with past Commission precedent.[69] The Commission has historically distinguished these services from "mass market" services, as they do not provide the capability to transmit data to and receive data from all or substantially all Internet endpoints.[70] We do not disturb that finding here.

25. Finally, we observe that to the extent that coffee shops, bookstores, airlines, private end-user networks such as libraries and universities, and other businesses acquire broadband Internet access service from an ISP to enable patrons to access the Internet from their respective establishments, provision of such service by the premise operator would not itself be considered a broadband Internet access service unless it was offered to patrons as a retail mass market service, as we define it here.[71] Likewise, when a user employs, for example, a wireless router or a Wi-Fi hotspot to create a personal Wi-Fi network that is not intentionally offered for the benefit of others, he or she is not offering a broadband Internet access service under our definition, because the user is not marketing and selling such service to residential customers, small business, and other end-user customers such as schools and libraries.

2. Broadband Internet Access Service Is an Information Service Under the Act

26. In deciding how to classify broadband Internet access service, we find that the best reading of the relevant definitional provisions of the Act supports classifying broadband Internet access service as an information service. Section 3 of the Act defines an "information service" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."[72] Section 3 defines a "telecommunications service," by contrast, as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."[73] Finally, section 3 defines "telecommunications"—used in each of the prior two definitions—as "the transmission, between or among points specified by the user, of information of the user's choosing,

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[66] *Id.* at 17965-66, paras. 112-13; *Title II Order*, 30 FCC Rcd at 5696, para. 207; *see also* Illinois DoIT Comments at 1-2 ("We believe it is important to highlight this distinction between BIAS and non-BIAS data services to allow development of innovative business models that address consumer needs, that are not met through a standard BIAS offering.").

[67] *Title II Order*, 30 FCC Rcd at 5697, para. 209.

[68] Cox Comments at 33.

[69] *Open Internet Order*, 25 FCC Rcd at 17933, para. 47.

[70] *Id*. Consistent with past Commissions, we note that the transparency rule we adopt today applies only so far as the limits of an ISP's control over the transmission of data to or from its broadband customers.

[71] *See Open Internet Order*, 25 FCC Rcd at 17935, para. 52. Although not bound by the transparency rule we adopt today, we encourage premise operators to disclose relevant restrictions on broadband service they make available to their patrons. *See id.* at 17936, para. 163.

[72] 47 U.S.C. § 153(24).

[73] 47 U.S.C. § 153(53).

without change in the form or content of the information as sent and received."[74] Prior to the *Title II Order* the Commission had long interpreted and applied these terms to classify various forms of Internet access service as information services—a conclusion affirmed as reasonable by the Supreme Court in *Brand X*.[75] Our action here simply returns to that prior approach.

27. When interpreting a statute it administers, the Commission, like all agencies, "must operate 'within the bounds of reasonable interpretation.' And reasonable statutory interpretation must account for both 'the specific context in which . . . language is used' and 'the broader context of the statute as a whole.'"[76] Below, we first explore the meaning of the "capability" contemplated in the statutory definition of "information service," and find that broadband Internet access service provides consumers the "capability" to engage in all of the information processes listed in the information service definition. We also find that broadband Internet access service likewise provides information processing functionalities itself, such as DNS and caching, which satisfy the capabilities set forth in the information service definition. We then address what "capabilities" we believe are being "offered" by ISPs, and whether these are reasonably viewed as separate from or inextricably intertwined with transmission, and find that broadband Internet access service offerings inextricably intertwine these information processing capabilities with transmission.

28. We find that applying our understanding of the statutory definitions to broadband Internet access service as it is offered today most soundly leads to the conclusion that it is an information service. Although the Internet marketplace has continued to develop in the years since the earliest classification decisions, broadband Internet access service offerings still involve a number of "capabilities" within the meaning of the section 3 definition of information services, including critical capabilities that all ISP customers must use for the service to work as it does today. While many popular uses of the Internet have shifted over time, the record reveals that broadband Internet access service continues to offer information service capabilities that typical users both expect and rely upon. Indeed, the basic nature of Internet service—"[p]rovid[ing] consumers with a comprehensive capability for manipulating information using the Internet via high-speed telecommunications"—has remained the same since the Supreme Court upheld the Commission's similar classification of cable modem service as an information service twelve years ago.[77]

29. A body of precedent from the courts and the Commission served as the backdrop for the 1996 Act and informed the Commission's original interpretation and implementation of the statutory definitions of "telecommunications," "telecommunications service," and "information service." The classification decisions in the *Title II Order* discounted or ignored much of that precedent. Without viewing ourselves as formally bound by that prior precedent,[78] we find it eminently reasonable, as a legal matter, to give significant weight to that pre-1996 Act precedent in resolving how the statutory definitions apply to broadband Internet access service, enabling us to resolve statutory ambiguity in a manner that we believe best reflects Congress's understanding and intent.[79]

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[74] 47 U.S.C. § 153(50).

[75] *Brand X*, 545 U.S. at 998 (finding "reasonable" "the Commission's understanding of the nature of cable modem service" and affirming its classification as an information service).

[76] *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2442 (2014).

[77] *Brand X*, 545 U.S. at 987.

[78] Our analysis thus is not at odds with the statement in *USTelecom* that the 1996 Act definitions were not "intended to freeze in place the Commission's existing classification of various services." *USTelecom*, 825 F.3d at 703; *see also, e.g.*, Free Press Reply at 10 (arguing that the Commission should not "base its current judgments solely in analogies to proceedings from the Bell era").

[79] *See, e.g.*, *Global Crossing Telecomms., Inc. v. Metrophones Telecomms., Inc.*, 550 U.S. 45, 48 (2007) ("[R]egulatory history helps to illuminate the proper interpretation and application" of the provisions of the Act at

(continued….)

a. Broadband Internet Access Service Information Processing Capabilities

30. We begin by evaluating the "information service" definition and conclude that it encompasses broadband Internet access service. Broadband Internet access service includes "capabilit[ies]" meeting the information service definition under a range of reasonable interpretations of that term. In other contexts, the Commission has looked to dictionary definitions and found the term "capability" to be "broad and expansive," including the concepts of "potential ability" and "the capacity to be used, treated, or developed for a particular purpose."[80] Because broadband Internet access service necessarily has the capacity or potential ability to be used to engage in the activities within the information service definition—"generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications"[81]—we conclude that it is best understood to have those "capabilit[ies]." The record reflects that fundamental purposes of broadband Internet access service are for its use in "*generating*" and "*making available*" information to others, for example through social media and file sharing;[82] "*acquiring*" and "*retrieving*" information from sources such as websites and online streaming and audio applications, gaming applications, and file sharing applications;[83] "*storing*" information in the cloud and remote servers, and via file sharing applications;[84] "*transforming*" and "*processing*" information such as by manipulating images and documents, online gaming use, and through applications that offer the ability to send and receive email, cloud computing and

issue there); *Brand X*, 545 U.S. at 992-93 ("Congress passed the definitions in the Communications Act against the background of [the Commission's *Computer Inquiries*] regulatory history, and we may assume that the parallel terms 'telecommunications service' and 'information service' substantially incorporated their meaning, as the Commission has held."); ADTRAN Comments at 10 ("This precedent is relevant not simply as *stare decisis*, but because the Commission in those previous decisions had analyzed the facts, nature of the services, and the legislative interplay and history to conclude that BIAS is an information service."); ACA Comments at 44. Consistent with this approach as a traditional tool of statutory interpretation, we reject arguments that suggest that we should disregard this precedent largely out-of-hand. *See, e.g.*, Free Press Reply at 11 ("[T]he MFJ and *Computer Inquiries* were based in large part on the Commission's interpretation of its own rules and authority, but the passage of the 1996 Act superseded them."); Public Knowledge Reply at 32 ("[T]he 1996 Telecommunications Act supersedes the MFJ."). More generally, of course, this precedent—*Brand X* in particular—demonstrates that the Act does not compel a telecommunications service classification. *See U.S. Telecom Ass'n v. FCC*, 855 F.3d 381, 384 (D.C. Cir. 2017) (Srinivasan, J., and Tatel, J., concurring in the denial of rehearing *en banc*) ("The issue in *Brand X* was whether the Communications Act compelled the FCC to classify cable broadband ISPs as telecommunications providers subject to regulatory treatment as common carriers. The Court answered that question no.").

[80] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al*., CC Docket Nos. 01-338, 98-147, 96-98, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17020, para. 54 & n.194 (2003) (*Triennial Review Order*), *rev'd on other grounds U.S. Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004).

[81] 47 U.S.C. § 153(24).

[82] *See, e.g.*, ACA Comments, Exh. B, Decl. of Chris Kyle at 2, Exh. C, Decl. of Brian Lynch at 2, Exh. E, Decl. of Steve Timcoe at 2; Cisco Comments at 14, n.43; Comcast Comments at 13; CenturyLink Comments at 23; Cox Comments at 9; Free State Foundation Comments at 10; Mobile Future Comments at 10-11; Verizon Comments at 35.

[83] *See, e.g.*, Cisco Comments at 14, n.43; Free State Foundation Comments at 10; Mobile Future Comments at 10-11; ADTRAN Comments at 5-6; CenturyLink Comments at 21-23; Verizon Comments at 35; Comcast Comments at 12; Cox Comments at 9; NCTA Comments at 13-14.

[84] *See, e.g.*, Verizon Comments at 35; CenturyLink Comments at 23; Cisco Comments at 14, n.43; Comcast Comments at 13; Cox Comments at 9; Free State Foundation Comments at 10; Mobile Future Comments at 10-11; NCTA Comments at 13-14.

machine learning capabilities;[85] and "*utilizing*" information by interacting with stored data.[86] These are just a few examples of how broadband Internet access service enables customers to generate, acquire, store, transform, process, retrieve, utilize, and make available information. These are not merely incidental uses of broadband Internet access service—rather, because it not only has "the capacity to be used" for these "particular purpose[s]" but was designed and intended to do so,[87] we find that broadband Internet access is best interpreted as providing customers with the "capability" for such interactions with third party providers.[88]

31. We also find that broadband Internet access is an information service irrespective of whether it provides the *entirety* of any end user functionality or whether it provides end user functionality in tandem with edge providers.[89] We do not believe that Congress, in focusing on the "offering of a capability," intended the classification question to turn on an analysis of which capabilities the end user selects. Further, we are unpersuaded by commenters who assert that in order to be considered an "information service," an ISP must not only offer customers the "capability" for interacting with information that may be offered by third parties ("click-through"), but must also provide the ultimate content and applications themselves.[90] Although there is no dispute that many edge providers likewise perform functions to facilitate information processing capabilities,[91] they *all* depend on the combination of information-processing and transmission that ISPs make available through broadband Internet access

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[85] *See, e.g.*, ACA Comments, Exh. B, Decl. of Chris Kyle at 2, Exh. C, Decl. of Brian Lynch at 2, Exh. E, Decl. of Steve Timcoe at 2 (asserting that their broadband Internet access services grants their customers the capability to transform content at their request); Cisco Comments at 14, n.43 (asserting that broadband Internet access users transform and process information every time they input a plaintext command into a browser or search engine); Cox Comments at 9; Mobile Future Comments at 10-11; CenturyLink Comments at 22-24; Free State Foundation Comments at 10; Verizon Comments at 35; Comcast Comments at 13.

[86] *See, e.g.*, CenturyLink Comments at 21- 22; Cisco Comments at 14, n.43; Comcast Comments at 13; Cox Comments at 9; Free State Foundation Comments at 10; Mobile Future Comments at 11; NCTA Comments at 13-14.

[87] *Triennial Review Order*, 18 FCC Rcd at 17020, para. 54 n.194 (discussing definition of "capability").

[88] AT&T Comments at 3, 4 ("Giving consumers the 'capability for' such interactions with third party providers is of course the very essence of broadband Internet access."); *see also* NCTA Comments at 13; Comcast Comments at 12; Verizon Comments at 35; Charter Comments at 14; NCTA Comments at 13; Reason Foundation Comments at 9; ADTRAN at 5-6; Alaska Communications Comments at 4; ACA Comments at 50-51; CenturyLink Comments at 20; CTIA Comments at 28-29; Free State Foundation Comments at 2; ITIF Comments at 12-13; Inmarsat Comments at 9-10; LGBT Technology Partnership Comments at 4; Mobile Future Comments at 10-11; T-Mobile Comments at 13; AT&T Reply at 60; Comcast Reply at 4-6; CTIA Reply at 22; Free State Foundation Comments at 10; Cox Reply at 3. We further observe that even though the record reflects that broadband Internet access service possesses all of the statutorily enumerated "capabilities," the use of the conjunction "or" among the listed capabilities requires that a service only offer one capability to bring a service within the statutory definition of information service. *See* Comcast Comments at 19; Free State Foundation Comments at 10, 12; AT&T Comments at 3.

[89] *See* NCTA Reply at 6.

[90] *See* Public Knowledge Comments at 27; Internet Engineers Comments at 20-21; CDT Comments at 5; *see also* OTI New America Comments at 29-30 (asserting that when "information service" was defined in the MFJ, the phrase "meant that the information service provider itself is engaged in the processing of the information [but] the examples listed in the NPRM are not that," and "[i]f a telecommunications service were transformed into an information service because it made available the information services *of others*, then no general use service could ever constitute a telecom service." (emphasis in original)); Peha Reclassification Comments at 1; Ben Kreuter Comments at 4; New Media Rights Comments at 7; Netflix Reply at 4.

[91] *Cf., e.g.*, Mitchell Lazarus Comments at 2 ("Examples are Facebook, Wikipedia, and almost any other website.").

service.[92] The fundamental purpose of broadband Internet access service is to "enable a constant flow of computer-mediated communications between end-user devices and various servers and routers to facilitate interaction with online content."[93]

32. From the earliest decisions classifying Internet access service, the Commission recognized that even when ISPs enable subscribers to access third party content and services, that can constitute "a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications."[94] As the Commission explained in the *Stevens Report*, "[s]ubscribers can retrieve files from the World Wide Web, and browse their contents, *because* their service provider offers the 'capability for . . . acquiring, . . . retrieving [and] utilizing . . . information.'"[95] Thus, even where an ISP enables end-users to access the content or applications of a third party, the Commission nonetheless found that constituted the requisite information service "capability."[96] When the *Title II Order* attempted to evaluate customer perception based on their usage of broadband Internet access service, it failed to persuasively grapple with the relevant implications of prior Commission classification precedent. The *Title II Order* argued that broadband Internet access service primarily is used to access content, applications, and services from third parties unaffiliated with the ISP

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[92] *See* Comcast Comments at 14 ("When a consumer uploads new content to Facebook, for instance, it is not only Facebook that provides the information-processing functionality necessary for such activity; it is also the BIAS provider whose information-processing capabilities enable consumers to connect and interact with Facebook's servers in the first place.").

[93] NCTA Reply at 7; *see also* Free State Foundation Reply at 30 (explaining that ISPs' coordination with third parties, by itself, does not alter the "nature of the functionality or service that broadband ISPs ultimately offer to end users. In such circumstances, it is the broadband ISPs that combine third-party supplied functionalities with their own and ultimately provide the integrated service offering to end users—with end users routinely unaware of whether or which particular functions might happen to be performed by third parties rather than broadband ISPs"); *infra* para. 56.

[94] *See, e.g.*, *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5910, para. 25; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13285-86, para. 9; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860-61, para. 9; *Cable Modem Order*, 17 FCC Rcd at 4821-22, para. 37; *Stevens Report*, 13 FCC Rcd at 11537, para. 76.

[95] *Stevens Report*, 13 FCC Rcd at 11538, para. 76 (emphasis added); *see also id*. at 11538-39, para. 78 (explaining with specific respect to e-mail that the ISP "does not send that message directly to the recipient" akin to a "'paperless fax,'" but instead sends it to the recipient's mail server, which stores it until it is further stored, rewritten, forwarded or otherwise processed). Attempts to distinguish the Commission's classification precedent thus are unfounded insofar as they fail to account for this aspect of the Commission's analysis in those orders. *See, e.g.*, Scott Jordan Reply at 9 ("The *Stevens Report* concluded that dial-up Internet access service was an information service because ISP-provided webpage hosting, webpage caching, and email offered such capabilities, not because dial-up Internet access service enabled an end user to utilize third party information service applications." (footnotes omitted)).

[96] *See, e.g.*, ACA Comments at 43 ("'[O]ffering of a capability' for engaging in all of these activities" such as using Facebook or YouTube "is exactly what is provided by broadband Internet access" (quoting *U.S. Telecom Ass'n v. FCC*, 855 F.3d 381, 395 (D.C. Cir. 2017) (Brown, J., dissenting from denial of rehearing *en banc*) and citing *Stevens Report*, 13 FCC Rcd at 11537-38, para. 76); AT&T Comments at 69-70 ("As the Commission and Solicitor General explained in *Brand X*, Internet access inherently offers the capability to 'click[] through' to third-party websites and obtain the 'contents of the requested web page[],' allowing a subscriber to 'interact[] with stored data. . . . The Commission's reclassification decision erroneously turned this point on its head, finding that Internet access is a pure transmission service because it is 'useful to consumers today primarily as a conduit for reaching modular content, applications, and services that are provided by unaffiliated third parties.' To the contrary, it is precisely because Internet access is useful to consumers for these purposes that it falls squarely within the statutory definition of information service."); USTelecom Comments at 31-32; Comcast Reply at 11 ("[T]he definition of 'information service' nowhere requires that ISP capabilities be *solely* responsible for any end-user functionality; it requires only that ISPs 'offer' an integrated 'capability' beyond mere transmission, which they unquestionably do."); Cox Reply at 5-6; NCTA Reply at 6-7; Verizon Reply at 32, 34.

in support of the view that customers perceive it as a separate offering of telecommunications.[97] The *Title II Order* offers no explanation as to why its narrower view of "capability" was more reasonable than the Commission's previous, long-standing view (other than seeking to advance the classification outcome that *Order* was driving towards). Consequently, the *Title II Order* essentially assumed away the legal question of whether end-users perceive broadband Internet access service as offering them the "capability for . . . acquiring, . . . retrieving [and] utilizing . . . information" under the broader reading of "capability" in prior Commission precedent.

33. But even if "capability" were understood as requiring more of the information processing to be performed by the classified service itself, we find that broadband Internet access service meets that standard. Not only do ISPs offer end users the capability to interact with information online in each and every one of the ways set forth above, they also do so through a variety of functionally integrated information processing components that are part and parcel of the broadband Internet access service offering itself.[98] In particular, we conclude that DNS and caching functionalities, as well as certain other information processing capabilities offered by ISPs,[99] are integrated information processing capabilities offered as part of broadband Internet access service to consumers today.[100]

34. *DNS*. We find that DNS is an indispensable functionality of broadband Internet access

[97] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5753-55, paras. 347-50; *see also USTelecom*, 825 F.3d at 698-99; AARP Comments at 91; Atty's General et al. Comments at 13-15; Internet Engineers Comments at 13; OTI New America Comments at 28; Public Knowledge Comments at 31-32, 39; RISE Stronger Comments at 15-16; Electronic Frontier Foundation (EFF) Comments at 17-19; OTI New America Reply at 18-19.

[98] *See, e.g.*, CenturyLink Comments at 24; AT&T Comments at 4 ("But even if ISPs had to provide 'data-processing' or 'data storage' functionalities *of their own* before Internet access could qualify as an information service, Internet access would still qualify as such because it invariably includes such functionalities (*e.g.*, DNS and/or caching)."); Comcast Comments at 7-8 ("Not only does BIAS still offer end users the capability to interact with information online *in each and every one of the ways* set forth in the Act's 'information service' definition, it also does so through a variety of functionally integrated information-processing components—such as Domain Name Service ('DNS') functionalities; spam, malware, and other consumer protection security features; caching; email; storage; and other capabilities—that are part and parcel of the 'offer' of broadband service and that confirm the correctness of the information service classification.").

[99] In addition to DNS and caching, the record reflects that ISPs may also offer a variety of additional features that consist of information processing functionality inextricably intertwined with the underlying service. *See, e.g.*, CenturyLink Comments at 26. These additional features include, and are not limited to: email, speed test servers, backup and support services, geolocation-based advertising, data storage, parental controls, unique programming content, spam protection, pop-up blockers, instant messaging services, on-the-go access to Wi-Fi hotspots, and various widgets, toolbars, and applications. *See, e.g.*, CenturyLink Comments at 24-26; AT&T Comments at 80-81. While we do not find the offering of these information processing capabilities determinative of the classification of broadband Internet access service, their inclusion in the broadband Internet access service, and the capabilities and functionalities necessary to make these features possible, further support the "information service" classification. *See* CTIA Comments at 40; AT&T Reply at 77 ("The additional functionalities offered by most ISPs are plainly information services, and because they are routinely 'offer[ed]' with Internet access as part of a service bundle, they independently compel an 'information service' classification" (citation omitted)); Comcast Comments at 7-8; CenturyLink Comments at 24.

[100] *See* Peha Reclassification Comments at 5 ("It is not relevant which services were offered or used decades ago. It is the Internet services and technology of 2017 that matter."); *cf.* Commercial Network Services Comments at 1 ("The definition of 'information service' was created by the telecommunications act of 1996, at a time when CompuServe, America Online and Prodigy were how America's spent their time online and all were accessed by dial-up telephone modem company."); ACLU/EFF Reply at 13; OTI New America Reply at 8.

service.[101] DNS is a core function of broadband Internet access service that involves the capabilities of generating, acquiring, storing, transforming, processing, retrieving, utilizing and making available information.[102] DNS is used to facilitate the information retrieval capabilities that are inherent in Internet access.[103] DNS allows "'click through' access from one web page to another, and its computer processing functions analyze user queries to determine which website (and server) would respond best to the user's request."[104] And "[b]ecause it translates human language (*e.g.*, the name of a website) into the numerical data (i.e., an IP address) that computers can process, it is indispensable to ordinary users as they navigate the Internet."[105] Without DNS, a consumer would not be able to access a website by typing its advertised name (*e.g.*, fcc.gov or cnn.com).[106] The *Brand X* Court recognized the importance of DNS, concluding that "[f]or an Internet user, 'DNS is a must. . . . [N]early all of the Internet's network services use DNS. That includes the World Wide Web, electronic mail, remote terminal access, and file transfer.'"[107] While ISPs are not the sole providers of DNS services,[108] the vast majority of ordinary consumers rely upon the DNS functionality provided by their ISP,[109] and the absence of ISP-provided DNS would fundamentally change the online experience for the consumer.[110] We also observe that DNS, as it is used today, provides

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[101] While we accept that DNS is not necessary for transmission, we reject assertions that it is not indispensable to the broadband Internet access service customers use—and expect—today. *But see, e.g.*, Peha Reclassification Comments at 13, 18; CDT Comments at 8-9; ITIF Comments at 13.

[102] *See* Nominum Comments at 2; Sandvine Comments at 2 (explaining that such servers generate recursive DNS queries, acquire and store domain name information, transform and process end user queries, retrieve domain name data from the Internet, utilize domain name data, and make available information of various types that is stored in the DNS); AT&T Comments at 73 (asserting that DNS provides ISPs with data-processing and data storage functionalities of its own).

[103] *See* CTIA Comments at 39; AT&T Comments at 74-75.

[104] AT&T Comments at 74.

[105] AT&T Comments at 73 (citations omitted); *see also* Reason Foundation Comments at 9-10 ("DNS is of fundamental importance to the functionality of the Internet, enabling users' devices, though web browsers, search engines and other tools, to identify and connect to websites and web pages. . . . Eliminating DNS would likely dramatically reduce the value of the entire domain naming system, harming both providers of content and services and users of that content and those services.").

[106] AT&T Comments at 74-75; *see also* Farsight Comments at 2 (explaining that "With the Domain Name System, you're able to easily get to Google by just typing in google.com. Without the Domain Name System you'd have to remember and enter a numeric IPv4 address such as 172.217.7.228, or, even worse, an IPv6 address such as 2607:f8b0:4004:802::2004. This would fundamentally (and negatively) change a broadband Internet user's online experience."); Fred Baker Comments at 2; Sandvine Comments at 1; Cox Comments at 11; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14864, para. 15 ("[A]n end user of wireline broadband Internet access service cannot reach a third party's web site without access to the Domain Nam[e] Service (DNS) capability. . . . The end user therefore receives more than transparent transmission whenever he or she accesses the Internet."); *see also* Nominum Reply at 3.

[107] *Brand X*, 545 U.S. at 999 (quoting P. Albitz & C. Liu, DNS and BIND 10 (4th ed. 2001)); *see also* AT&T Comments at 75 (quoting *Brand X*, 545 U.S. at 998, 1000).

[108] *See, e.g.*, Internet Engineers Comments at 26; Commercial Network Services Comments at 3; Atkins Comments at 1-2; David Ha Comments at 3; Benjamin Kreuter Comments at 8.

[109] *See, e.g.*, Nominum Reply at 4 ("[A]pproximately 97 percent of consumers receive their DNS service through their ISP's broadband offering. . . . This sky-high adoption of and reliance on the DNS service provided by ISPs, particularly when there are other alternatives on the market, many of which are free, indicates that consumers want and expect their broadband service to include DNS. Much as consumers expect to purchase a car with a steering wheel and tires, consumers expect a turnkey broadband service from their ISPs and that includes DNS services.").

[110] *See, e.g.*, Farsight Comments at 2; Charter Comments at 14-15 (explaining that DNS is more than merely incidental to the broadband Internet service that ISPs provide, and that without DNS, broadband Internet access

(continued….)

more than a functionally integrated address-translation capability, but also enables other capabilities critical to providing a functional broadband Internet access service to the consumer, including for example, a variety of underlying network functionality information associated with name service, alternative routing mechanisms, and information distribution.[111]

35. The treatment of similar functions in MFJ precedent bolsters our conclusion.[112] In particular, when analyzing "gateway" functionalities by which BOCs would provide end-users with access to third party information services, the MFJ court found that "address translation," which enabled "the consumer [to] use an abbreviated code or signal . . . in order to access the information service provider" such as through "the translation of a mnemonic code into [a] telephone number," rendered gateways an information service.[113] The "address translation" gateway function appears highly analogous

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would cease to resemble the seamless information retrieval service to which customers have become accustomed); Sandvine Comments at 2 ("Yes, it is correct that for the overwhelming majority of customers, the ISP is performing the DNS function. It is a rare customer in the United States that knows how to manually change their DNS settings, takes time to do so, and does so on all of their many connected devices."); AT&T Comments at 74 (asserting that "[v]irtually all consumers today rely on their broadband ISP to include DNS look-up functionality as an integral part of broadband Internet access service" and that "[m]ass-market consumers would find broadband services without DNS utterly useless for accessing the Internet"); Satchell Comments at 26 ("DNS is *very useful* to the customer. The use of names instead of numbers is key to the acceptance of the Web by the general public. Without DNS, the Internet would not be as ubiquitous as it is today."); *see also* Sandvine Comments at 3 ("ISP DNS servers tend to be superior to 3rd party DNS servers simply because they reside within the ISP network and are distributed much more widely and locally than 3rd party DNS servers, which tend to be centralized in just a few datacenters to serve the entire U.S. As a result, queries to a 3rd party DNS may traverse a large section of the country to get to a 3rd party DNS. As the industry knows, the trend is towards more locally distributed content and services; the closer they are to the end user the better the performance will be.").

[111] *See* CenturyLink App. 2, Bronsdon Decl. at 7-8 (asserting that DNS enables a variety of underlying network functionality information such as name service (NS), mail exchange (MX) and service (SRV) records; enables mechanisms, such as canonical name (CNAME), delegation name (DNAME), and pointer (PTR) records for selecting alternative routes to information; and facilitates information distribution or content delivery systems); Cox Comments at 10, 11; Comcast Comments 15-16; Farsight Comments at 3 ("DNS is widely used as more than 'just' an addressing scheme.").

[112] Despite the fact that the telecommunications management exception (and information service definition more broadly) was drawn most directly from the MFJ, the *Title II Order* essentially ignored MFJ precedent when concluding that DNS fell within the statutory telecommunications management exception. *See generally Title II Order*, 30 FCC Rcd at 5765-69, 5770, paras. 365-69, 371; *see also, e.g.*, INCOMPAS Comments at 54-55 (arguing that finding DNS to fall within the telecommunications management exception is "in keeping with *Computer II*"); *cf. id*. at 56 ("[A]s Justice Scalia argued, 'DNS 'is scarcely more than routing information, which is expressly excluded from the definition of 'information service' by the telecommunications systems management exception set out in the last clause of section 3(24) of the Act.'"'); NASUCA Comments at 16; OTI New America Comments at 29-30. In addition, even the *Title II Order*'s limited use of *Computer Inquiries* precedent focused mostly on relatively high-level Commission statements about the general sorts of capabilities that could be basic (or adjunct-to-basic) or drew analogies to specific holdings that are at best ambiguous as to their application to broadband Internet access service. *See, e.g.*, *Title II Order*, 31 FCC Rcd at 5768-69, 5771-72, paras. 367, 373, 375; *see also, e.g.*, Barbara van Schewick and Patrick Leerssen Reply at 29-31 (citing general statements in *Computer Inquiries* precedent regarding "data processing features necessary for the operation of a packet-switched network").

[113] *U.S. v. West. Elec. Co., Inc.*, 673 F. Supp. 525, 593 & n.307 (D.D.C. 1987) (*MFJ Initial Gateway Decision*), *aff'd in part and rev'd in part on other grounds*, 900 F.2d 283 (D.C. Cir. 1990). We recognize that gateway functionalities and broadband Internet access service are not precisely coextensive in scope. *See, e.g.*, Public Knowledge Reply at 33 (arguing that "broadband internet does not provide, for example, 'billing management' for all the edge services that users access, or 'introductory information content'"). We do, however, find similarities between functionalities such as address translation and storage and retrieval to key functionalities provided by ISPs as part of broadband Internet access service, and we conclude the court found such gateway and similar functionalities independently sufficient to warrant an information service classification under the MFJ. *See, e.g.*, *U.S. v. West. Elec. Co.*, 714 F. Supp. 1, 19-20 (D.D.C. 1988) (*MFJ Gateway/Storage & Retrieval Decision*)

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to the DNS function of broadband Internet access service, which enables end users to use easier-to-remember domain names to initiate access to the associated IP addresses of edge providers. That MFJ precedent, neglected by the *Title II Order*, thus supports our finding that the inclusion of DNS in broadband Internet access service offerings likewise renders that service an information service.[114]

36. We thus find that the *Title II Order* erred in finding that DNS functionalities fell within the telecommunications systems management exception to the definition of "information service."[115] That exception from the statutory information service definition was drawn from the language of the MFJ,[116] and was understood as "directed at internal operations, not at services for customers or end users."[117] We interpret the concepts of "management, control, or operation"[118] in the telecommunications management exception consistent with that understanding. Applying that interpretation, we find the record reflects that little or nothing in the DNS look-up process is designed to help an ISP "manage" its network; instead, DNS functionalities "provide stored information to *end* users to help them navigate the Internet."[119] As AT&T explains: "When an end user types a domain name into his or her browser and sends a DNS query to an ISP, . . . the ISP . . . converts the human-language domain name into a numerical IP address, and it then conveys that information back to the end user . . . [who] (via his or her browser)

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(analyzing storage and retrieval separately from other gateway functionalities); *MFJ Initial Gateway Decision*, 673 F. Supp. at 587 n.275 (observing that the transmission of information services at issue there "involves a number of functions that by any fair reading of the term 'information services' would be included in that definition").

[114] We rely on this analogy between DNS and particular functions classified under pre-1996 Act precedent not because the technologies are identical in all particulars, but because they share the same relevant characteristics for purposes of making a classification decision under the Act. Given the close fit between DNS and the address translation function classified as an information service under the MFJ coupled with the fact that the statutory information service definition (and telecommunications management exception) was drawn more directly from the MFJ, we find the MFJ precedent entitled to more weight than analogies to *Computer Inquiries* precedent. We thus are not persuaded by arguments seeking to analogize DNS to directory assistance, which the Commission classified as "adjunct-to-basic" under the *Computer Inquiries*. *See, e.g.*, OTI New America Comments at 33-34 ("The parallel in telephone service is computer-assisted directory assistance, where a user can find the phone number (like an IP address in BIAS) of a person based on their name (like a domain name in BIAS). This service has long been adjunct-to-basic and did not transform telephone service into an information service. DNS similarly does not direct a classification of BIAS as an information service."); Barbara van Schewick and Patrick Leerssen Reply at 32-33; Harold Hallikainen Comments at 13; Peha Reclassification Comments at 19; Ben Kreuter Comments at 4; Commercial Network Services Comments at 3; Satchell Comments at 26.

[115] *Title II Order*, 30 FCC Rcd at 5765-66, para. 366.

[116] The court's definition of information services excluded capabilities "for the management, control, or operation of a telecommunication system or the management of a telecommunications service." *MFJ Initial Decision*, 552 F. Supp. at 229. Under the Communications Act, the definition of "information services" includes an identically-worded "telecommunications management" exception. 47 U.S.C. § 153(24). Commission precedent and legislative history likewise recognize that the definition was drawn from the MFJ. *See, e.g.*, *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21954, para. 99; H.R. Conf. Rep. No. 104-458 at 126 (Jan. 31, 1996) ("'Information service' and 'telecommunications' are defined based on the definition used in the Modification of Final Judgment.").

[117] *United States v. Am. Tel. & Tel. Co.*, 1989 WL 119060, *1 (D.D.C. Sept. 11, 1989) (citing Department of Justice, *United States v. Western Electric Company, Inc., and American Telephone & Telegraph Company; Competitive Impact Statement in Connection With Proposed Modification of Final Judgment*, Notice, 47 Fed. Reg. 7170, 7176 (Feb. 17, 1982) (*DOJ Competitive Impact Statement*)).

[118] Although the exception is worded in terms of "management, control, or operation," for convenience here we refer to those collectively at times as "management" or the like.

[119] AT&T Comments at 77-78; *see also* T-Mobile Comments at 14; Charter Comments at 13-14; CTIA Comments at 39-40; Harold Hallikainen Comments at 8; Verizon Comments at 58; AT&T Reply at 70-71; Cox Reply at 6-7; CTIA Reply at 28-30; NCTA Reply at 9-10; Comcast Comments at 19.

thereafter sends a follow-up request for the Internet resources located at that numerical IP address."[120] DNS does not merely "manage" a telecommunications service, as some commenters assert,[121] but rather is a function that is useful and essential to providing Internet access for the ordinary consumer.[122] We are persuaded that "[w]ere DNS simply a management function, this would not be the case."[123] Comparing functions that *would* fall within the exception illustrates the distinction. For example, in contrast to DNS's interaction with users and their applications,[124] "non-user, management-only protocols might include things such as Simple Network Management Protocol (SNMP), Network Control Protocol (NETCONF), or DOCSIS bootfiles for controlling the configuration of cable modems."[125] These protocols support services that manage the network independent of the transmission of information initiated by a user.[126]

37. The *Title II Order* drew erroneous conclusions from *Computer Inquiries* precedent and too quickly rejected objections to its treatment of DNS as meeting the telecommunications management exception.[127] Under the *Computer Inquiries* framework, the Commission held that some capabilities "may properly be associated with basic [common carrier] service without changing its nature, or with an enhanced service without changing the classification of the latter as unregulated under Title II of the Act."[128] These commonly came to be known as "adjunct" capabilities.[129] The Commission has held that functions it had classified as "adjunct-to-basic" under the *Computer Inquiries* framework will fall within the statutory telecommunications management exception to the information service definition.[130]

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[120] AT&T Comments at 78.

[121] CDT Comments at 8; ITIF Comments at 13; New Media Rights Comments at 4-5 ("[B]ecause these services [like DNS, DHCP, caching, and others] are necessary to route, manage, or otherwise use BIAS, they fall under the management exception embodied in the definition of information service." (citations omitted)); AARP Comments at 85; WGAW Comments at 8.

[122] Nominum Comments at 5 (asserting that the "features of DNS-based services are focused on enhancing the consumer's Internet experience and go well-beyond what is needed for the management and control of telecommunications system").

[123] Sandvine Comments at 5; *see also* USTelecom Comments at 35 (asserting that DNS "capabilities uniformly permit or enhance the use of the World Wide Web; they do not manage a telecommunications system or service").

[124] *See* IANA, *Domain Name System (DNS) Parameters*, https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml (last visited Dec. 1, 2017) (for full set of information types supported by the DNS protocol).

[125] Sandvine Comments at 5.

[126] Other functions that would fall into the telecommunications systems management exception might include information systems for account management and billing, configuration management, and the monitoring of failures and other state information, and to keep track of which addresses are reachable through each of the interconnected neighboring networks. *See* Peha Reclassification Comments at 20.

[127] The same shortcomings are present in the *Title II Order*'s analysis of caching, as well.

[128] *Communications Protocols Under Section 64.702 of the Commission's Rules and Regulations*, GN Docket No. 80-756, Memorandum Opinion, Order, and Statement of Principles, 95 FCC 2d 584, 591, para. 15 (1983) (*Protocols Order*).

[129] *See, e.g.*, *North American Telecommunications Association Petition for Declaratory Ruling Under §64.702 of the Commission's Rules Regarding the Integration of Centrex, Enhanced Services, and Customer Premises Equipment*, Memorandum Opinion and Order, 101 FCC 2d 349, 359, para. 24 (1985) (*NATA Centrex Order*) ("The computer processing services we recognized as permissible adjuncts to basic service are services which might indeed fall within possible literal readings of our definition of an enhanced service, but which are clearly 'basic' in purpose and use.").

[130] *See, e.g.*, *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21958, para. 107.

Drawing loose analogies to certain functions described as adjunct-to-basic under Commission precedent, the *Title II Order* held that DNS fell within the telecommunications management exception.

38. The *Title II Order* incorrectly assumed that so long as a functionality was, in part, used in a manner that could be viewed as adjunct-to-basic, it necessarily was adjunct-to-basic regardless of what the functionality otherwise accomplished.[131] Although confronted with claims that DNS is, in significant part, designed to be useful to end-users rather than providers, the *Title II Order* nonetheless decided that it fell within the telecommunications management exception.[132] While conceding that DNS, as well as other functions like caching, "do provide a benefit to subscribers,"[133] the *Title II Order* held that they nonetheless fell within the telecommunications management exception because it found some aspect of their operation also was of use to providers in managing their networks.[134] This expansive view of the telecommunications management exception—and associated narrowing of the scope of information services—is a transposition of the analytical approach embodied in the MFJ and *Computer Inquiries*; under the approach in the pre-1996 Act precedent, the analysis would instead begin with the broad language of the information service or enhanced service definitions, generally excluding particular functions only if the purpose served clearly was narrowly focused on facilitating bare transmission. The Commission and the courts made clear the narrow scope of the 'adjunct-to-basic' or 'telecommunications management' categories in numerous decisions in many different contexts.[135]

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[131] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5766-68, paras. 367-68. In addition to the MFJ precedent, Bureau precedent similarly has observed that adjunct-to-basic capabilities do not include functions "useful to end users, rather than carriers." *Petitions for Forbearance from the Application of Section 272 of the Communications Act of 1934, As Amended, to Certain Activities, Bell Operating Companies*, CC Docket No. 96-149, Memorandum Opinion and Order, 13 FCC Rcd 2627, 2639, para. 18 (CCB 1998) (*272 Forbearance Order*). Given the lack of ambiguity in the MFJ's holding in this regard, we find it more reasonable to interpret this precedent to call for a similar requirement that "adjunct to basic" services do not include services primarily useful to end-users, and reject arguments to the contrary. *See, e.g.*, Public Knowledge Reply at 37 ("The 'rule' AT&T attempts to extract from this is simply another paragraph of the telecommunications management exception which, applied to DNS, still does not lead to the result it wants.").

[132] *Title II Order*, 30 FCC Rcd at 5768, para. 368 & n.1037. The same is true of the *Title II Order*'s treatment of caching. *Id*. at 5768, para. 368 n.1037.

[133] *Id*.

[134] *Id*.

[135] *See, e.g.*, *Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry) et al.*, CC Docket No. 85-229, Report and Order, 104 FCC 2d 958, 967-68, para. 10 (1986) (*Computer III Phase I Order*) ("[d]ata processing, computer memory or storage, and switching techniques can be components of a basic service if they are used *solely* to facilitate the movement of information" (emphasis added)); *NATA Centrex Order*, 101 FCC 2d at 360, para. 26 (speed dialing and call forwarding "*serve but one purpose*: facilitating establishment of a transmission path over which a telephone call may be completed" (emphasis added)); *id*. at 360, para. 26 (directory assistance that "provides *only* that information about another subscriber's telephone number which is *necessary to allow use of the network to place a call* to that other subscriber . . . may be offered as an adjunct to basic service" while "an offering of access to a data base for most other purposes is the offering of an enhanced service" (emphasis added)); *Computer II Final Decision*, 77 FCC 2d at 419, para. 93 ("[a] basic transmission service is one that is limited to the common carrier offering of transmission capacity for the movement of information"); *id*. at 420-21, para. 97 ("[a]n enhanced service is any offering over the telecommunications network which is more than a basic transmission service"); *id*. at 421, para. 98 ("computer processing applications such as call forwarding, speed calling, directory assistance, itemized billing, traffic management studies, voice encryption, etc. . . . are ancillary services directly related to [the] provision" of basic telephone service "that do not raise questions about the fundamental communications or data processing nature of a given service" (internal quotation marks omitted)); *MFJ Initial Gateway Decision*, 673 F. Supp. at 587 n.275 (rejecting arguments that transmission of information services fall outside the definition of information services by focusing in the first instance on "the breadth of the information services definition"); *see also DOJ Competitive Impact Statement*, 47 Fed. Reg. at 7176 (telecommunications

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39. The *Title II Order* also put misplaced reliance on *Computer Inquiries* adjunct-to-basic precedent from the traditional telephone service context as a comparison when evaluating broadband Internet access service functionalities.[136] Because broadband Internet access service was not directly addressed in pre-1996 Act *Computer Inquiries* and MFJ precedent, analogies to functions that were classified under that precedent must account for potentially distinguishing characteristics not only in terms of technical details but also in terms of the regulatory backdrop. The 1996 Act enunciates a policy for the Internet that distinguishes broadband Internet access from legacy services like traditional telephone service. The 1996 Act explains that it is federal policy "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[137] The application of potentially ambiguous precedent to broadband Internet access service should be informed by how well—or how poorly—it advances that deregulatory statutory policy. We find that our approach to that precedent, which results in an information service classification of broadband Internet access service, better advances that deregulatory policy than the approach in the *Title II Order*, which led to the imposition of utility-style regulation under Title II.

40. The regulatory history of traditional telephone service also informs our understanding of *Computer Inquiries* precedent, further distinguishing it from broadband Internet access service. Given the long history of common carriage offering of that service by the time of the *Computer Inquiries*, it is understandable that some precedent started with a presumption that the underlying service was a "basic service."[138] But similar assumptions would not be warranted in the case of services other than traditional telephone service for which there was no similar longstanding history of common carriage. Thus, not only did the *Title II Order* rely on specific holdings that are at best ambiguous in their analogy to

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services may "include related functions" that are "essential to such transmission," so, for example, where a function "constitutes an inherent aspect of the technology used in transmission and switching," it would not result in the service being classified an information service under the MFJ). Notably, the focus remains on the purpose or use of the specific function in question and not merely whether the resulting service, as a whole, is useful to end-users. *See, e.g.*, Public Knowledge Reply at 37 ("To maintain, as AT&T does, that something that is 'useful' to an end user cannot fall under the management exception is absurd, as the entire purpose of broadband is to be useful to end users, as is the entire purpose of telephony.").

[136] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5768-69, para. 369.

[137] 47 U.S.C. § 230(b)(2).

[138] *See, e.g.*, *NATA Centrex Order*, 101 FCC 2d at 358, para. 23 ("[W]e did not intend that our definition of enhanced services should be interpreted as forbidding carriers to use the processing and storage capabilities within their networks to offer optional tariffed features which facilitate use of traditional telephone service. Accordingly, the Final Decision carried forward from the Tentative Decision our recognition that there are computer processing services which may be offered in conjunction with basic telephone service."); *Computer II Final Decision*, 77 FCC 2d at 421, para. 98 ("The intent was to recognize that while POTS is a basic service, there are ancillary services directly related to its provision that do not raise questions about the fundamental communications or data processing nature of a given service. Accordingly, we are not here foreclosing telephone companies from providing to consumers optional services to facilitate their use of traditional telephone service."); *US West Communications Petition for Computer III Waiver*, Docket No. 90-623, Order, 11 FCC Rcd 1195, 1199, para. 27 (CCB 1995) ("[T]he Commission held in the NATA Centrex Order that carriers may use some of the processing and storage capabilities within their networks to offer optional tariffed features as 'adjunct to basic' services, if the services: (1) are intended to facilitate the use of traditional telephone service; and (2) do not alter the fundamental character of telephone service."); *cf.*, *e.g.*, *AT&T Corp. Petition for Declaratory Ruling Regarding Enhanced Prepaid Calling Card Services, Regulation of Prepaid Calling Card Services*, WC Docket Nos. 03-133, 05-68, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 4826, 4830-31, paras. 15-16 (2005) (*AT&T Calling Card Order*) (AT&T's prepaid calling card service involves "no 'offer' to the customer of anything other than telephone service, nor is the customer provided with the 'capability' to do anything other than make a telephone call," and relying on *Computer Inquiries* precedent, the Commission found that unprompted advertisements inserted by AT&T were adjunct-to-basic and thus leave the service a "telecommunications service" under the 1996 Act definitions.).

technical characteristics of broadband Internet access service, but it failed to adequately appreciate key regulatory distinctions between traditional telephone service and broadband Internet access service.[139]

41. *Caching*. We also conclude that caching, a functionally integrated information processing component of broadband Internet access service, provides the capability to perform functions that fall within the information service definition.[140] As the record reflects, "[c]aching does much more than simply enable the user to obtain more rapid retrieval of information through the network; caching depends on complex algorithms to determine what information to store where and in what format."[141] This requires "extensive information processing, storing, retrieving, and transforming for much of the most popular content on the Internet,"[142] and as such, caching involves storing and retrieving capabilities required by the "information service" definition.[143] The Court affirmed this view in *Brand X*, finding "reasonable" the "Commission's understanding" that Internet service "facilitates access to third-party Web pages by offering consumers the ability to store, or 'cache,' popular content on local computer servers," which constitutes "the 'capability for . . . acquiring, [storing] . . . retrieving [and] utilizing information.'"[144]

42. We find that ISP-provided caching does not merely "manage" an ISP's broadband Internet access service and underlying network, it enables and enhances consumers' access to and use of information online.[145] The record shows that caching can be realized as part of a service, such as DNS, which is predominantly to the benefit of the user (DNS caching).[146] Caching can also be realized in terms of content that can be accumulated by the ISP through non-confidential (i.e., non-encrypted)[147] retrieval

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[139] *Title II Order*, 30 FCC Rcd at 5768-69, para. 369 (summarily asserting that the traditional telephone service context of its cited precedent "provides no basis to discard the logic of that analysis in the broadband context"); *see also, e.g.*, ACLU/EFF Reply at 4 ("If the NATA Centrex Order had concerned Internet access, it would doubtless have read 'offering of access to a data base for purposes of obtaining *Internet* numbers' is an 'adjunct to basic *Internet* service.'"). Thus, for example, the fact that the adjunct-to-basic classification of directory assistance arose in the traditional telephone context likewise persuades us to give it relatively little weight here as an analogy to DNS, and we reject arguments to the contrary. *See, e.g.*, OTI New America Comments at 33-34; Barbara van Schewick and Patrick Leerssen Reply at 32-33.

[140] *See* Comcast Comments at 15-16; ITIF Comments at 13; Charter Comments at 14.

[141] ITIF Comments at 13. *See also* CTIA Comments at 37; AT&T Comments at 75-76 ("ISPs routinely arrange for the use of caching to enhance their customers' ability to acquire information. Caching technologies use powerful information-processing algorithms to determine what to cache, where to cache it, and how long the content should be cached." (citation omitted)).

[142] ITIF Comments at 13.

[143] *See* AT&T Comments at 75-76 ("The prevalence of caching confirms . . . that broadband Internet access falls within the scope of 'information service' (because by definition it consists of 'storing' and 'retrieving' information."). As such, we reject commenter assertions to the contrary. *See, e.g.*, Public Knowledge Comments at 48-49.

[144] *Brand X*, 545 U.S. at 999-1000.

[145] *See* Comcast Comments at 19; Verizon Comments at 58; CTIA Comments at 36-37 ("'Caching's capabilities enhance users' quality of experience and add[] value to their broadband Internet access service,' Rysavy explains, 'by providing faster and more dependable service.'" (citations omitted)); Reason Foundation Comments at 10; Charter Comments at 14-15.

[146] *See Stevens Report*, 13 FCC Rcd at 11537-38, para. 76; *Cable Modem Order*, 17 FCC Rcd at 4809-10, para. 17 n.76 ("Caching is similarly a behind-the-scenes service that speeds content delivery and thus improves consumers' online experience.").

[147] We disagree with assertions in record that suggest that ISP-provided caching is not a vital part of broadband Internet access service offerings, as it may be stymied by the use of HTTPS encryption. *See* ACLU/EFF Reply (stating "ISP caching is significantly stymied by the use of HTTPS encryption, which has increased from just 2% in

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of information from websites (Web caching). In this case, the user benefits from a rapid retrieval of information from a local cache or repository of information while the ISP benefits from less bandwidth resources used in the retrieval of data from one or more destinations. DNS and Web caching are functions provided as part and parcel of the broadband Internet access service. When ISPs cache content from across the Internet, they are not performing functions, like switching, that are instrumental to pure transmission, but instead storing third party content they select in servers in their own networks to enhance access to information.[148] The record reflects that without caching, broadband Internet access service would be a significantly inferior experience for the consumer, particularly for customers in remote areas, requiring additional time and network capacity for retrieval of information from the Internet.[149] Thus, because caching is useful to the consumer, we conclude that the *Title II Order* erred in incorrectly categorizing caching as falling within the telecommunications system management exception to the definition of "information service."

43. In addition, the *Title II Order*'s failure to consider applicable MFJ precedent led to mistaken analogies when it concluded that caching fell within the statutory telecommunications management exception.[150] In relevant precedent, the MFJ court observed that the information service restriction generally "prohibits the [BOCs] from 'storing' and 'retrieving' information," but identified "quite distinct settings in which storage capabilities of the [BOCs] could be used in the information services market."[151] One of the categories of storage and retrieval identified by the court appears highly comparable to caching. That category involved BOC provision of "storage space in their gateways for databases created by others" such as "information service providers and end users," making "communication more efficient by moving information closer to the end user, thereby reducing

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2010 to more than 50% in 2017") (citations omitted); *see also* Public Knowledge Comments at 13 ("HTTP Secure ('HTTPS') accounted for 49% of web traffic in February 2016, as compared to 13% in April 2014" (citing Peter Swire et al., *Online Privacy and ISPs: ISP Access to Consumer Data is Limited and Often Less than Access by Others*, The Inst. for Info. Sec. & Privacy at Ga. Tech at 10 (Feb. 29, 2016) (white paper), http://www.iisp.gatech.edu/sites/default/files/images/online_privacy_and_isps.pdf)). Recently, the Commission concluded that encryption is not yet ubiquitous and that "truly pervasive encryption on the Internet is still a long way off, and that many sites still do not encrypt." *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Report and Order, 31 FCC Rcd 13911, 13922, para. 34 (2016) (*2016 Privacy Order*), *nullified by* Pub. L. 115-22. In the same proceeding, the Commission also found that DNS queries are almost never encrypted. *Id*. at 13921, n.39. While we recognize that the *2016 Privacy Order* and the rules adopted therein have been nullified under the Congressional Review Act, we nonetheless find the Commission's analysis of the record in that proceeding on this point relevant.

[148] *See* USTelecom Comments at 34-35.

[149] *See, e.g.*, NCTA Comments at 15; *Brand X*, 545 U.S. at 999 (noting that caching "obviates the need for the end user to download anew information from third-party Web sites each time the consumer attempts to access them, thereby increasing the speed of information retrieval"); Charter Comments at 14-15 (explaining that without caching, customers would experience greater delays in retrieving such information if and when they find it); Verizon Comments at 58 (explaining that caching is a behind-the-scenes service that speeds content delivery and thus improves consumers' online experience, and for that reason, is not a network management process but instead a valuable component of the information service that ISPs offer to consumers). For these reasons, we reject arguments to the contrary. *See, e.g.*, Public Knowledge Comments at 49 (Caching operates "not just for the benefit of the end user, who may experience faster transmission, but also for the benefit of the network provider, reducing the resource demands and traffic loads of their network"); Scott Jordan Reply at 12-13 ("[I]f a broadband Internet access service provider chooses to implement caching inside its network, and not as a content delivery network service offered to edge providers, then it is doing so in order to manage its broadband Internet access service.").

[150] *See generally Title II Order*, 30 FCC Rcd at 5770-71, para. 372; *see also, e.g.*, INCOMPAS Comments at 54-55 (arguing that finding caching to fall within the telecommunications management exception is "in keeping with *Computer II*").

[151] *MFJ Gateway/Storage & Retrieval Decision*, 714 F. Supp. at 18 n.73, 19.

transmission costs."[152] This functionality—recognized as an information service by the MFJ court—appears highly analogous to caching, and lends historical support to our view that the caching functionality within broadband Internet access service is best understood as rendering broadband Internet access service an information service.[153]

44. Ignoring that MFJ precedent, the *Title II Order* erred in seeking to analogize caching to "'store and forward technology [used] in routing messages through the network as part of a basic service'" mentioned in the *Computer II Final Decision*.[154] In fact, consistent with the MFJ court's identification of distinct uses of storage and forwarding, the cited portion of the *Computer II Final Decision* recognized that "the kind of enhanced store and forward services that can be offered are many and varied."[155] In that regard, the *Computer II Final Decision* distinguished "[t]he offering of store and forward *services*" from "store and forward *technology*," explaining that "[m]essage or packet switching, for example, is a store and forward technology that may be employed in providing basic service."[156] Reading that discussion in full context and in harmony with subsequent MFJ precedent, the reference in the *Computer II Final Decision* to "store and forward technology" appears better understood as mirroring a category of storage and retrieval of information that the MFJ court suggested was not an information service—in particular, "the basic packet switching function, . . . [which] involves the breakdown of data or voice communications into small bits of information that are then collected and transmitted between nodes."[157] That category of activity relied upon in the *Title II Order* thus actually appears to be barely or not at all analogous to caching. We instead find more persuasive the MFJ court's information service treatment of BOC provision of "storage space in their gateways for databases created by others" such as "information service providers and end users"—a distinct category of storage and retrieval functionality that is a close fit to caching.[158]

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[152] *Id*. at 19.

[153] The first category the court identified was "very short term storage," including, among other things, "the basic packet switching function," which "involves the breakdown of data or voice communications into small bits of information that are then collected and transmitted between nodes," involving "constant storage, error checking, and retransmission, as required for accurate transmission." *Id*. at 19. Although the court was not entirely clear, it seemed to suggest that such functions were not information services under the MFJ. This category appears to bear little similarity to caching, however. The third category of "storage and retrieval" information service functions identified by the court would include the BOC's provision of "voice messaging, voice storage and retrieval, and electronic mail." *Id*. at 19-20 (footnotes omitted). Because that category does not appear as analogous to caching as the category identified by the court and described above, nor was it relied upon in the *Title II Order*'s discussion of caching, we do not focus on that third category in our discussion here.

[154] *Title II Order*, 30 FCC Rcd at 5770-71, para. 372, n.1052 (quoting *Computer II Final Decision*, 77 FCC 2d at 420-21, para. 97, n.35); *see also, e.g.*, Public Knowledge Comments at 61 (citing "message or packet switching" functions).

[155] *Computer II Final Decision*, 77 FCC 2d at 420-21, para. 97.

[156] *Id.* at 420-21, para. 97, n.35.

[157] *MFJ Gateway/Storage & Retrieval Decision*, 714 F. Supp. at 19.

[158] *Id*. We are unpersuaded by claims that this MFJ precedent only is analogous to CDNs and not "transparent caching" based on asserted differences in how it is determined what content will be stored in each scenario. Letter from Jon Peha, Professor, Carnegie Mellon University, WC Docket No. 17-108, at 3-4 (filed Dec. 7, 2017) (Peha Dec. 7, 2017 *Ex Parte* Letter). Although the factual scenario discussed in the MFJ anticipated end-users or information service providers electing what information to store, and that fact may have partially informed the court's decision whether to ultimately allow BOCs to provide that capability notwithstanding its classification as an information service, we do not read the underlying classification as turning on that issue. *MFJ Gateway/Storage & Retrieval Decision*, 714 F.Supp. at 19. Further, in addition to the distinctions between caching and store-and-forward technology acknowledged even in this filing, Peha Dec. 7, 2017 *Ex Parte* Letter at 4, we find additional shortcomings in how the *Title II Order* relied on adjunct-to-basic precedent. *See, e.g.*, *supra* paras. 38-40.

b. ISPs' Service Offerings Inextricably Intertwine Information Processing Capabilities with Transmission

45. Having established that broadband Internet access service has the information processing capabilities outlined in the definition of "information service," the relevant inquiry is whether ISPs' broadband Internet access service offerings make available information processing technology inextricably intertwined with transmission. Below we examine both how consumers perceive the offer of broadband Internet access service, as well as the nature of the service actually offered by ISPs, and conclude that ISPs are best understood as offering a service that inextricably intertwines the information processing capabilities described above and transmission.

46. We begin by considering the ordinary customer's perception of the ISP's offer of broadband Internet access service. As *Brand X* explained, "[i]t is common usage to describe what a company 'offers' to a consumer as what the consumer perceives to be the integrated finished product."[159] ISPs generally market and provide information processing capabilities and transmission capability together as a single service.[160] Therefore, it is not surprising that consumers perceive the offer of broadband Internet access service to include more than mere transmission, and that customers want and pay for functionalities that go beyond mere transmission.[161] As Cox explains, "[w]hile consumers also place significant weight on obtaining a reliable and fast Internet connection, they view those attributes as a means of enabling these capabilities to interact with information online, not as ends in and of themselves."[162] Indeed, record evidence confirms that consumers highly value the capabilities their ISPs offer to acquire information from websites, utilize information on the Internet, retrieve such information, and otherwise process such information.[163]

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[159] *Brand X*, 545 U.S. at 990.

[160] *See* ACA Comments at 52 ("ACA members confirm that their marketing of broadband Internet access service has not undergone substantial change since the inception of the service and that it has always emphasized both the always-on capabilities that broadband Internet access would afford subscribers, including the ability to retrieve and utilize the panoply of available Internet content and applications, and the fast speeds at which they would be able to stream, download and upload Internet content.").

[161] *See, e.g.*, MSI Survey Report at 4; *see also* NCTA Reply at 7-8 ("[A] recent survey of consumers confirms that they highly value the capabilities their BIAS providers offer to '*acquire* information' from internet websites, '*utilize* information' on the internet, '*retrieve*' such information,' [sic] and otherwise '*process*' such information. Not only do consumers expect their BIAS providers to offer such capabilities, but the vast majority view the functions they enable—such as the ability to search for and find information on the web, to send and receive emails, to surf the Internet, and to shop online—as 'must have.'"); Cox Reply at 4-5 (similar); USTelecom Reply at 7-11 ("[W]e wanted to confirm (or debunk), based on objective, data-driven analysis, the Commission's assertion that consumers understand their BIAS to function only as a 'transmission platform' that they can use to access third-party content, applications and services of their choosing. It turns out that consumers expect their BIAS to offer far more than just a pathway to the Internet."); Comcast Comments at 23 ("[M]any of the information components of BIAS are now taken for granted as being included—and expected to be included—in the offered service."); Comcast Reply at 6 ("[M]ost consumers are aware of integrated service features offered by their BIAS provider—such as online storage, parental controls, and e-mail. . . . Not only do consumers expect their BIAS provider(s) to offer such capabilities over fast and reliable Internet connections, but a significant majority view the functions enabled by these capabilities—such as surfing the web, streaming media, or shopping online—as 'very' important."); Free State Foundation Comments at 15 ("[E]nd user consumers perceive, even if tacitly, that broadband ISPs are offering a functionally integrated service. They do not perceive that they are purchasing transmission as a standalone service.").

[162] Cox Reply at 5; *see also* Letter from Diane Holland, Vice President, USTelecom and Rick Chessen, Senior Vice President, NCTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. A (MSI Survey Report) at 4-5 (filed Aug. 28, 2017) (USTelecom and NCTA *Ex Parte*).

[163] *See* MSI Survey Report at 4; *see also* NCTA Reply at 7-8; Cox Reply at 4-5; USTelecom Reply at 7-11. *But see*

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47. This view also accords with the Commission's historical understanding that "[e]nd users subscribing to . . . broadband Internet access service expect to receive (and pay for) a finished, functionally integrated service that provides access to the Internet. End users do not expect to receive (or pay for) two distinct services—both Internet access service and a distinct transmission service, for example."[164] While the *Title II Order* dwells at length on the prominence of transmission speed in ISP marketing, it makes no effort to compare that emphasis to historical practice.[165] In fact, ISPs have been highlighting transmission speed in their marketing materials since long before the *Title II Order*.[166] The

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Letter from Carmen Scurato, Director, Policy and Legal Affairs, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 at 2 (filed Nov. 20, 2017) (NHMC Expert Analysis of Open Internet Consumer Complaints) ("Consumers and carriers, at least according to their responses to consumer complaints, appear to conceptualize broadband Internet access as basic telecommunications service and characterize it in terms of quality and capacity of connections."). NHMC's argument, based on what it asserts to be a representative sample of consumer complaints filed with the Commission, is not persuasive. NHMC's methodology relied on Natural Language Processing (NLP) to determine words that co-occur in such complaints, and then used "iterative clustering algorithms" to "ma[p] connections among them." *See id.* attachment at 13-15. Neither NHMC's methodology nor the representative extracts of the complaints NHMC submitted demonstrate that individual complaints about particular aspects of service reflect how a customer would perceive service offerings as a whole. Indeed, the sample of complaints attached by NHMC features a broad set of issues, ranging widely from questions about speed to "losing my Internet connection," "charg[ing] extra for your services," "interrupt[ing] the service," "bully[ing] me into share plans," "Google arbitrarily engag[ing] in monopolistic practices," "charg[ing] me modem rental fee," or "basically no technical support." *See id*. at 40-71. We further note that to the extent that perceived speed is a common complaint, that does not mean consumers view broadband Internet access service as a pure transmission service. A consumer's perceived speed for many activities (such as web browsing) depends on information-processing elements of the service like DNS and caching; indeed, caching's primary consumer benefit is allowing a more rapid retrieval of information from a local cache (increasing the perceived speed of a consumer's connection). Moreover, the Commission has never relied on such complaints to identify what a service is. And for good reason: We expect consumer complaints about problems with a service—not every aspect of it. Indeed, applying such a methodology would lead to absurd results: Should we redefine the public switched network based on the millions of robocall complaints we get each year or the rural-call-completion problems that we know are too prevalent? Of course not.

[164] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14910-11, para. 104; *see also, e.g.*, *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913, para. 31 (same); *Cable Modem Order*, 17 FCC Rcd at 4822-23, para. 38 ("Consistent with the analysis in the [*Stevens Report*], we conclude that the classification of cable modem service turns on the nature of the functions that the end user is offered. We find that cable modem service is an offering of Internet access service, which combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications.").

[165] *See Title II Order*, 30 FCC Rcd at 5755-57, paras. 351-54; *see also USTelecom*, 825 F.3d at 699, 704-05 (discussing the *Title II Order*'s analysis of marketing); AARP Comments at 83 (discussing certain ISPs' marketing statements); Free Press Comments at 42 (similar); Public Knowledge Comments, App. A (similar); OTI New America Comments at 27 ("BIAS providers today market their services as an access path to internet based content. BIAS providers distinguish, and indeed consumers compare, their services based on factors such as speed."); Vimeo Comments at 28 (discussing certain ISPs' marketing statements); EFF Comments at 17-19 ("Today's BIAS providers, while they may offer email, are not marketed or perceived as providers of content, storage, data processing, or other information services. Indeed, unlike the America Online of two decades ago, today's BIAS providers advertise the speed and reliability of their data transmission, not the information services they offer."); Peha Reclassification Comments at 5 (asserting that ISPs market their service by bragging about the quality of IP packet transfer, rather than the quality of information services such as proprietary content or email); *cf.* AARP Comments at 91 ("Consumers have tools available, such as bandwidth testing meters, that enable them to understand what download speeds their service provider delivers."); *id*. at 94 ("Bandwidth is what matters to consumers of broadband Internet access service.").

[166] *See, e.g.*, USTelecom Comments at 32-33; Verizon Comments at 57; CenturyLink Comments at 27 ("[T]he relative prominence of speed as a focus in CenturyLink marketing efforts has not changed materially over time since 2000."); ACA Comments at 41, n.126 (affirming that ACA members "had not fundamentally changed the way in
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very first report on advanced telecommunication capability pursuant to section 706(b) of the 1996 Act, released in 1999, cited ISPs' marketing of their Internet access service speed.[167] ISPs' inclusion of speed information in their marketing also was acknowledged by the Court in *Brand X*, which nonetheless upheld the Commission's information service classification as reasonable.[168] Indeed, consideration of ISP marketing practices has been part of the backdrop of all of the Commission's decisions classifying broadband Internet access service as an information service and thus cannot justify a departure from the historical classification of broadband Internet access service as an information service.

48. The *Title II Order*'s reliance on ISP marketing also assumes that it provides a complete picture of what consumers perceive as the finished product. First, the record reflects that ISP marketing of broadband encompasses features beyond speed and reliability.[169] Further, because all broadband Internet access services rely on DNS and commonly also rely on caching by ISPs, to the extent that those capabilities, in themselves, do not provide a point of differentiation among services or providers, it would be unsurprising that ISPs did not feature them prominently in their marketing or advertising, particularly to audiences already familiar with broadband Internet access service generally.[170] Indeed, speed and reliability are not exclusive to telecommunications services; rather, the record reflects that speed and reliability are crucial attributes of an information service.[171] Consequently, the mere fact that broadband

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which they advertise their broadband Internet access service—they have always emphasized both its enhanced functionalities and fast speeds").

[167] *See, e.g.*, *Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398, 2431, Chart 2 (1999).

[168] *Cf., e.g.*, *Brand X*, 545 U.S. at 1007 n.1 (Scalia, J., dissenting) (arguing that just as when a "pizzeria advertises quick delivery as one of its advantages over competitors" that also "is the case with cable broadband"); *id*. at 991-92 (Court majority rejecting the dissent's pizzeria analogy—along with another analogy involving dogs and dog leashes—and observing that "unlike the transmission component of Internet service, delivery service and dog leashes are not integral components of the finished products (pizzas and pet dogs)").

[169] *See, e.g.*, CenturyLink Comments at 26; CenturyLink Comments Appx. 1, Decl. of Dane Folster at 2 ("CenturyLink promotes Wi-Fi capabilities, 24/7 technical support, and a free Norton AntiVirus solution and other features of our BIA service."); Cox Comments at 11 ("Cox's broadband marketing focuses not only on transmission speeds but also on advanced connectivity features, including the wall-to-wall range of Cox's 'Panoramic WiFi,' Cox Security Suite Plus, WebMail, and SpamBlocker services.").

[170] *See, e.g.*, Comcast Comments at 23 ("[M]any of the information components of BIAS are now taken for granted as being included—and expected to be included—in the offered service, so there is no reason to advertise them."); ACA Comments at 41, n.126 ("Indicating that any greater emphasis on speed in recent years was a reflection of the public's growing understanding of the service and the faster speeds their networks could obtain."); *Sours v. General Motors Co.*, 717 F.2d 1511 (6th Cir. 1983) (holding that in a products liability case, lack of advertising about car safety in accidents—which had been present in an earlier products liability case involving off-road vehicles—did not preclude findings regarding consumer expectations of the cars at issue because "[t]he automobile is hardly a new product," and "[t]he expectations of ordinary automobile owners with respect to foreseeable accidents in the course of everyday on-road vehicle operation probably are easier to define than the adventurers' expectations concerning inherently hazardous off-road performance in open jeeps, advertising notwithstanding"); *Cunningham v. Mitsubishi Motors Corp.*, 1993 WL 1367436, *4 (S.D. Ohio 1993) (holding that in a products liability case, the "Court does not agree with Defendants' contention that the absence of advertising regarding the safety of their seat belts prevents the use of the consumer expectation test" where "consumers have had ample opportunity to develop expectations regarding the safety of seat belts").

[171] *See, e.g.*, Verizon Comments at 57-58 ("Advertising the speed and reliability with which [] data is transferred is not remotely inconsistent with broadband Internet service being an information service—service providers are simply informing consumers how they can use the speed and reliability of their connection *for the purpose of* 'generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information.'"); Comcast Comments at 24 ("Even Justice Scalia remarked in his dissent in *Brand X* that broadband providers 'advertise[] quick delivery as one of [their] advantages over competitors.' In any event, BIAS providers routinely include more than just 'speed' claims in their advertisements. And 'there is little reason to think consumers might
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Internet access service marketing often focuses on characteristics, such as transmission speed, by which services and providers can be differentiated sheds little to no light on whether consumers perceive broadband Internet access service as inextricably intertwining that data transmission with information service capabilities.[172]

49. Separate and distinct from our finding that an ISP "offers" an information service from the consumer's perspective, we find that as a factual matter, ISPs offer a single, inextricably intertwined information service. The record reflects that information processes must be combined with transmission in order for broadband Internet access service to work,[173] and it is the combined information processing capabilities and transmission functions that an ISP offers with broadband Internet access service. Thus, even assuming that any individual consumer could perceive an ISP's offer of broadband Internet access service as akin to a bare transmission service,[174] the information processing capabilities that are actually offered as an integral part of the service make broadband Internet access service an information service as

want a fast or reliable 'transmission . . . of information' but not a fast or reliable 'capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information.'"). As such, we reject assertions that speed and reliability are only characteristics of telecommunications services and further note that ISPs market these aspects because they can be differentiated, unlike DNS or caching. *See, e.g.*, Peha Reclassification Comments at 13 (asserting that speed and reliability are not characteristics of an information service, but rather characteristics of a telecommunications service).

[172] Neither the discussion of the consumer's perspective by Justice Scalia nor that in the *Title II Order* identifies good reasons to depart from the Commission's prior understanding that broadband Internet access is a single, integrated information service. Justice Scalia contended that how customers perceive cable modem service is best understood by considering the services for which it would be a substitute—in his view at the time, dial-up Internet access and digital subscriber line (DSL) service over telephone networks. *Brand X*, 545 U.S. at 1008-09. However, dial-up Internet access has substantially diminished in marketplace significance in the subsequent years. *See, e.g.*, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability To All Americans In A Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant To Section 706 of the Telecommunications Act of 1996, As Amended By the Broadband Data Improvement Act*, GN Docket No. 16-245, Twelfth Broadband Progress Notice of Inquiry, 31 FCC Rcd 9140, 9171, Table 1, n.181 (2016) (*Twelfth Section 706 NOI*) ("Based upon households with Internet services at home, NTIA reports 61 percent of households have mobile Internet services, 76 percent have wired Internet services, 3 percent have satellite Internet services and 0.7 percent have dial-up Internet services."); AT&T Comments at 84, n.124 ("[T]he virtual disappearance of dial-up (in which separate companies provided Internet access and last-mile transmission) has made it even *less* likely that broadband consumers would perceive two different services rather than one."). In addition, the legal compulsion for facilities-based carriers to offer broadband transmission on a common carrier basis was eliminated in 2005. *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14872-903, paras. 32-95. Fixed and mobile wireless broadband Internet access service have grown to play a much more prominent role in the broadband Internet access service marketplace, along with satellite broadband Internet access service, none of which ever was under a legal compulsion to offer broadband transmission on a common carrier basis—nor, prior to the *Title II Order*, were they interpreted as voluntarily doing so. *See, e.g.*, *Twelfth Section 706 NOI*, 31 FCC Rcd at 9171, Table 1, n.181. Consequently, whatever might have been arguable at the time of *Brand X*, the service offerings in the marketplace as it developed thereafter provide no reason to expect that consumers "inevitabl[y]" would view broadband Internet access service as involving "*both* computing functionality *and* the physical pipe" as separate offerings based on comparisons to the likely alternatives. *Brand X*, 545 U.S. at 1009 (Scalia, J., dissenting).

[173] *See, e.g.*, CTIA Reply at 23; CTIA Comments, Exh. A, Rysavy Decl. at 3-4, para. 4 ("Transmission of data has become intertwined with other services that provide value to users. The very transmission of data in the internet involves processing of information, in some cases transforming packets."); *see also supra* paras. 34, 42.

[174] *See, e.g.*, AARP Comments at 90-91; CDT Comments at 8; Internet Engineers Comments at 18; WGAW Comments at 5; Free Press Comments at 41.

defined by the Act.[175] As such, we reject commenters' assertions that the primary function of ISPs is to simply transfer packets and not process information.[176]

50. The inquiry called for by the relevant classification precedent focuses on the nature of the service offering the provider makes, rather than being limited to the functions within that offering that particular subscribers do, in fact, use or that third parties also provide.[177] The *Title II Order* erroneously contended that, because functions like DNS and caching potentially could be provided by entities other than the ISP itself, those functions should not be understood as part of a single, integrated information service offered by ISPs.[178] However, the fact that some consumers obtain these functionalities from third-party alternatives is not a basis for ignoring the capabilities that a broadband provider actually "offers." The *Title II Order* gave no meaningful explanation why a contrary, narrower interpretation of "offer" was warranted other than, implicitly, its seemingly end-results driven effort to justify a telecommunications service classification of broadband Internet access service.

51. Our findings today are consistent with classification precedent prior to the *Title II Order*, which consistently found that ISPs offer a single, integrated service.[179] Even the early classification

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[175] *See, e.g.*, CenturyLink Comments at 25; Comcast Comments at 14; AT&T Comments at 69; *see also* Verizon Comments at 39; CTIA Comments at 36; Oracle Comments at 2; Free State Foundation Comments at 13; Cox Comments at 9.

[176] *See, e.g.*, CDT Comments at 8; Stein Comments at 3; Internet Engineers Comments at 20, 22; EFF Comments at 17-18; Peha Reclassification Comments at 18; Volo Comments at 1; Daily Kos Comments at 3; Harold Hallikainen Comments at 1; Ryan Blake Comments at 1-2; ILSR Comments at 1; Multifreq LLC Comments at 1.

[177] As the Commission recognized in the *Cable Modem Order*, Internet access service was appropriately classified as an offering of the capabilities with the definition of an information service "regardless of whether subscribers use all of the functions provided as part of the service." *Cable Modem Order*, 17 FCC Rcd at 4822-23, para. 38; *see also, e.g.*, ACA Comments at 50-51; AT&T Comments at 81-82; CTIA Comments at 41; Comcast Comments at 18; Comcast Reply at 8-9; Free State Foundation Comments at 12-13; NCTA Comments at 16-17; AT&T Reply at 71-72; CTIA Reply at 25-26; Verizon Reply at 35.

[178] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5769-71, paras. 370-72; *see also, e.g.*, AARP Comments at 84-85; CDT Comments at 9 ("[I]nternet users commonly access services like DNS and email from separate third-party sources without any additional difficulty."); Harold Hallikainen Comments at 5; INCOMPAS Comments at 56; Public Knowledge Comments at 45 ("A broadband customer can configure the software on her device and router to use one of these alternative DNS servers, instead of her ISP's."); *id*. at 49, 50-51 ("[I]t is not the ISPs but other third-parties who provide much of the actual caching functionality for broadband customers in the present day."); Barbara A. Cherry et al. Reply, Attach. at 6-7; Scott Jordan Reply at 10-12; Barbara van Schewick and Patrick Leerssen Reply at 22, 36-38; Internet Engineers Comments at 13, 15.

[179] Although we find the pre-1996 Act *classification* precedent relevant to our classification of broadband Internet access service, we reject the view that Congress would have expected classification under the 1996 Act's statutory definitions to be tied to the substantive common carrier transmission *requirements* imposed under those frameworks. *See, e.g.*, Free Press Comments at 58-61. We conclude that the best view of the text and structure of the Act undercuts arguments that Congress sought to preserve the substance of pre-1996 Act regulations through the definitions it adopted. Instead, where Congress sought to address substantive requirements akin to those in the MFJ and *Computer Inquiries*, it did so by adopting subjective obligations in the 1996 Act—even if not identical to the pre-1996 Act requirements—and subject to their own Congressionally specified standards for when and to what entities they apply. *See, e.g.*, 47 U.S.C. §§ 251, 256. In addition, the wholesale service focus of substantive MFJ and *Computer Inquiries* common carrier transmission obligations also distinguishes them from the retail service we classify here, likewise undermining any claimed relevance of those pre-1996 Act transmission requirements to our classification decision. The Commission recognized, for example, that the transmission underlying broadband Internet access required by the *Computer Inquiries* to be offered on an unbundled, common carrier basis and provided to ISPs was not a "retail" service within the meaning of section 251(c)(4) resale requirements. *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Second Report and Order, 14 FCC Rcd 19237 (1999). Nor did such a common carrier transmission service itself enable access to the Internet, even if purchased by end-users. *See, e.g.*, *id*. at 19240, para. 6 & n.16 (noting a DSL transmission offering

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analysis in the *Stevens Report* recognized that "[i]n offering service to end users" ISPs "do more than resell [] data transport services. They conjoin the data transport with data processing, information provision, and other computer-mediated offerings, thereby creating an information service."[180] In *Brand X*, the Court rejected claims that "[w]hen a consumer . . . accesses content provided by parties other than the cable company" that "consumer uses 'pure transmission.'"[181] The Court further found that "the high-speed transmission used to provide cable modem service is a functionally integrated component of that service because it transmits data only in connection with the further processing of information and is necessary to provide Internet service."[182] The core, essential elements of these prior analyses of the

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that, as explained in the associated marketing materials, end-users could purchase and use in conjunction with certain partner ISPs). By comparison, under the *Computer Inquiries*, the finished service offered to end-users relying on the required common carrier transmission as an input was regulated as an enhanced service, not a common carrier offering, even when offered by the facilities-based carrier's subsidiary. *See, e.g.*, *Computer II Final Decision*, 77 FCC 2d at 474, para. 230 (when carriers' enhanced services subsidiaries offer enhanced services "the subsidiary itself is not regulated"). Given our focus here on the finished retail broadband Internet access service, we see little relevance to prior regulatory requirements that were imposed to ensure competing providers had access to a wholesale input in the form of a compelled common carriage offering of bare transmission that did not itself provide Internet access.

[180] *Stevens Report*, 13 FCC Rcd at 11540, para. 81.

[181] *Brand X*, 545 U.S. at 998. Subsequent Commission decisions involving other forms of broadband Internet access likewise all concluded that the broadband Internet access service was a single, integrated service that did not involve a stand-alone offering of telecommunications. *See, e.g.*, *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5911, 5913, paras. 26, 31; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13285-89, paras. 8-14; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14864-65, 14910-11, paras. 15-16, 104. Although parties have, over time, held various views regarding the proper classification of broadband Internet access services, the mere fact that a party held such a view in the past, or holds such a view today, does not render a Commission decision confirming a particular view "moot," *see, e.g.*, Free Press Reply at 14 ("AT&T's new notion that DSL offered at retail was somehow an information service after the passage of the 1996 Act would render the 2005 *Wireline Broadband Order* moot"), since a private party's subjective view is not authoritative. *Brand X*, 545 U.S. at 998.

[182] *Brand X*, 545 U.S. at 998. This distinction makes broadband Internet access service fundamentally different than standard telephone service, which the Supreme Court noted does not become an "information service" merely because its transmission service may be "trivially affected" by some additional capability such as voicemail. *Id*. Where the addition of some further capability has appeared to have only a trivial effect on the nature of a service, the Commission has previously declined requests for reclassification. *AT&T Calling Card Order*, 20 FCC Rcd at 4832-33, para. 20 ("AT&T offers its 'enhanced' calling card service to consumers solely as a telecommunications service. The advertising information it provides is not in any sense an integral or essential part of the service AT&T offers to consumers. Rather, it is completely incidental to that service and therefore not sufficient to warrant reclassification of the service as an information service." (footnote omitted)); *Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290, 7295-96, paras. 15, 16 (2006) (*Prepaid Calling Card Order*) ("The customer may use only one capability at a time and the use of the telecommunications transmission capability is completely independent of the various other capabilities that the card makes available. . . . The prepaid calling card services we address in this *Order* offer consumers the ability to make telephone calls, just like the AT&T card that the Commission addressed in the [*AT&T Calling Card Order*]."); *Request For Review By Intercall, Inc. of Decision of Universal Service Administrator*, CC Docket No. 96-45, Order, 23 FCC Rcd 10731, 10735, para. 13 (2008) (*InterCall Order*) ("[T]he other features offered in conjunction with InterCall's conferencing service, such as muting, recording, erasing, and accessing operator services, do not alter the fundamental character of InterCall's telecommunications offering so that the entire offering becomes an information service."). Due to the functionally integrated nature of broadband Internet access service, however, we reject claims that those decisions call for a different approach than we adopt here. *See, e.g.*, Barbara van Schewick and Patrick Leerssen Reply at 25-26 (discussing the *AT&T Calling Card Order*, *Prepaid Calling Card Order*, and *InterCall Order*). Likewise, the outcome in the Bureau-level *Cisco WebEx Order* accords with our approach, given the finding that the information service capabilities more than trivially affected the transmission capability in the scenario addressed there. *See, e.g.*, *Universal Service Contribution Methodology; Request For Review of a Decision of the Universal Service Administrator by Cisco WebEx LLC*, WC Docket No. 06-122, Order, 31 FCC Rcd 13220,
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functional nature of Internet access remain persuasive as to broadband Internet access service today. We adhere to that view notwithstanding arguments that some subset of the array of Internet access uses identified in the *Stevens Report* or subsequent decisions either are no longer as commonly used,[183] or occur more frequently today.[184]

52. We disagree with commenters who assert that ISPs necessarily offer both an information service and a telecommunications service because broadband Internet access service includes a transmission component.[185] In providing broadband Internet access service, an ISP *makes use* of telecommunications—i.e., it provides information-processing capabilities "via telecommunications"—but does not separately *offer* telecommunications on a stand-alone basis to the public.[186] By definition, *all* information services accomplish their functions "via telecommunications,"[187] and as such, broadband Internet access service has always had a telecommunications component intrinsically intertwined with the computer processing, information provision, and computer interactivity capabilities an information service offers.[188] Indeed, service providers, who are in the best position to understand the inputs used in

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13230-31, para. 24 (WCB 2016) (*Cisco WebEx Order*) (In the *Prepaid Calling Card Order*, "[t]he Commission noted that the customer may use only one capability at a time, and the use of the telephone calling capability was completely independent of the other capabilities unlike the services in the *Prepaid Calling Card Order* that were only minimally linked because they were not engaged or used simultaneously, . . . here the services are capable of — and are — used together and exhibit functional integration when they are so used."). Contrary to some arguments, the Bureau had no need to—and did not—address the classification of other service scenarios, *see Cisco WebEx Order*, 31 FCC Rcd at 13224, paras. 11-12, and we reject arguments for a different classification approach that are premised on assumptions about how those unaddressed scenarios would have been analyzed or classified. *See, e.g.*, Barbara van Schewick and Patrick Leerssen Reply at 26-28 ("The FCC concluded that Cisco's PSTN telephony feature was a 'telecommunications service' when used without the Desktop application (i.e. the information service).").

[183] *See, e.g.* Ad Hoc Comments at 5-6 (citing use of Internet access for things like "'FTP clients, Usenet newsreaders, electronic mail clients,' and 'Telnet applications'" as well as storing "'files on internet service provider computers to establish 'home pages'"); Free Press Comments at 26 & n.42 (similar); *id*. at 30-31 (alleging that the *Cable Modem Order* was focused on things like "email, newsgroups, and webpage creation" but "not connectivity to the Internet"); Public Knowledge Comments at 38-41 (discussing the reference to "'e-mail, newsgroups, and the ability to create a web page").

[184] *See, e.g.*, AARP Comments at 87-90 (arguing that "[t]oday, Internet users are also edge providers" and that "[t]he technology setting that inspired the *Cable Modem Order* clearly no longer exists"). Even at the time of the *Cable Modem Order* the Commission recognized the role of user-generated content, and its decision in no way hinged on distinctions in how retail customers of cable modem service used that service in that respect. *See, e.g.*, *Cable Modem Order*, 17 FCC Rcd at 4822-23, para. 38 (discussing, among other things, newsgroups and the ability for the user to create a webpage).

[185] *See, e.g.*, INCOMPAS Comments at 41-46; OTI New America Comments at 26; Interisle Comments at 2; AARP Comments at 90-91.

[186] *See, e.g.*, Cox Comments at 12-13; *see also Stevens Report*, 13 FCC Rcd at 11522, para. 41 ("When an entity offers subscribers the 'capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information via telecommunications,' it does not *provide* telecommunications; it is *using* telecommunications." (emphasis added)); Hance Haney Reply at 3 (citing *Stevens Report*, 13 FCC Rcd at 11536, para. 39).

[187] 47 U.S.C. § 153(50) (defining "telecommunications"). We observe that placing information in IP packets does not change the form of information. We find that the transmission of IP packets is transmission of the user's choosing, and also agree that "[c]hanging the packet structure of an IP packet from IPv4 to IPv6" does not change the form of the information. Internet Engineers Comments at 29; *see also* Scott Jordan Reply at 27.

[188] CTIA Comments at 33-34; Comcast Comments at 14; Verizon Comments at 40; *see also* Vimeo Comments at 27 (asserting that "it has always been understood that BIAS's pathway component was a telecommunications service"). As just one example, in support of its classification decision, the *Title II Order* notes that it is technically possible
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broadband Internet access service, do not appear to dispute that the "via telecommunications" criteria is satisfied even if also arguing that they are *not providing* telecommunications to end-users.[189] For example, ISPs typically transmit traffic between aggregation points on their network and the ISPs' connections with other networks.[190] Whether self-provided by the ISP or purchased from a third party, that readily appears to be transmission between or among points selected by the ISP of traffic that the ISP has chosen to have carried by that transmission link.[191] Such inclusion of a transmission component does not render broadband Internet access services telecommunications services; if it did, the entire category of information services would be narrowed drastically.[192] Because we find it more reasonable to conclude that at least some telecommunications is being used as an input into broadband Internet access service—thereby satisfying the "via telecommunications" criteria—we need not further address the scope of the "telecommunications" definition in order to justify our classification of broadband Internet access service

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for a transmission component underlying broadband Internet access service to be separated out and offered on a common carrier basis. *See Title II Order*, 31 FCC Rcd at 5774-75, para. 381. The same would be equally true of many information services, however, given that the information service capabilities are, by definition, available "via telecommunications." 47 U.S.C. § 153(24); *see also, e.g.*, OTI New America Comments at 26-27 (stating that "[b]ecause the functionality in both telecommunications and information services are separated into different layers, and those layers are modular such that the layers can interact without the telecommunications portion depending in any way on information service, telecommunications and information services are clearly separable," and going on to argue that "[t]he technology itself clearly delineates between telecommunications and information service, and so should the law").

[189] *See, e.g.*, NCTA Comments at 9-10, 19-21 (arguing that "via telecommunications" is satisfied through the use of telecommunications as an input but also that the service provided to end-users lacks elements of the definition of "telecommunications"); AT&T Reply at 60, 66 (arguing that broadband Internet access service meets the "information service" definition but also that the service provided to end-users lacks elements of the definition of "telecommunications"); *see also Stevens Report*, 13 FCC Rcd at 11534-35, para. 69 n.138 ("When the information service provider owns the underlying facilities, it appears that it should itself be treated as providing the underlying telecommunications. That conclusion, however, speaks only to the relationship between the facilities owner and the information service provider (in some cases, the same entity); it does not affect the relationship between the information service provider and its subscribers.").

[190] *See, e.g.*, Stanley M. Besen & Mark A. Israel, *The Evolution of Internet Interconnection from Hierarchy to "Mesh": Implications for Government Regulation*, 25 Info. Econ. & Pol'y 235, 237-39 (2013) (discussing connections among ISPs and other networks and providers), cited in AT&T Reply at 38 n.58.

[191] We reject as overbroad the claim that "a transmission is 'telecommunications' within the meaning of 47 U.S.C. § 153(30) *only* if the transmission is capable of communicating with *all* circuit switched devices on the PSTN or has the purpose of facilitating the use of the PSTN without altering its fundamental character as a telephone network." Tech Knowledge Comments at 5; *see also, e.g.*, Tech Knowledge Reply at 11. This claim appears premised on incorporating section 332's definition of a commercial mobile service (which must be "interconnected" with the "public switched network") into section 3 of the Act and drawing from pre-1996 Act precedent using an end-to-end analysis to determine the regulatory jurisdiction of communications traffic to inform the interpretation of the term "points." *See, e.g.*, Tech Knowledge Comments at 34-35; Tech Knowledge Reply at 11-17; Letter from Fred Campbell, Director, Tech Knowledge, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1-2 (filed Sept. 19, 2017). But we find no evidence in the text of the statute that Congress intended to import the commercial mobile service definition from one section into another, and our precedent similarly does not countenance such an importation. Nor is the end-to-end analysis the only pre-1996 Act precedent from which the concept of "points" in the "telecommunications" definition might have been drawn so as to unambiguously foreclose our conclusion that "via telecommunications" is satisfied here. *See, e.g.*, 47 CFR § 21.2 (1995).

[192] *See, e.g.*, Verizon Comments at 40; CTIA Comments at 29; *Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 et al., Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518, 7538-39, para. 40 (2006) (An entity can "provide" telecommunications even if it does not "offer" telecommunications because "'provide' is a different and more inclusive term than 'offer.'"); *Vonage Holdings Corp. v. FCC*, 489 F.3d 1232, 1239-41 (D.C. Cir. 2007) (upholding the FCC's distinction between "providing" telecommunications and "offering" telecommunications service).

as an information service. We thus do not comprehensively address other criticisms of the *Title II Order*'s interpretation and applications of the "telecommunications" definition, which potentially could have implications beyond the scope of issues we are considering in this proceeding.[193]

53. The approach we adopt today best implements the Commission's long-standing view that Congress intended the definitions of "telecommunications service" and "information service" to be mutually exclusive ways to classify a given service.[194] As the *Brand X* Court found, the term "offering" in the telecommunications service definition "can reasonably be read to mean a 'stand-alone' offering of telecommunications."[195] Where, as in the case of broadband Internet access services, a service involving transmission inextricably intertwines that transmission with information service capabilities—in the form of an integrated information service—there cannot be "a 'stand-alone' offering of telecommunications" as required under that interpretation of the telecommunications service definition.[196] This conclusion is true even if the information service could be said to involve the provision of telecommunications as a component of the service.[197] The Commission's historical approach to Internet access services carefully navigated that issue, while the *Title II Order*, by contrast, threatened to usher in a much more sweeping scope of "telecommunications services."[198]

54. The *Title II Order* interpretation stands in stark contrast to the Commission's historical classification precedent and the views of all Justices in *Brand X*. Beginning with the earliest classification decisions, the Commission found that transmission provided by ISPs outside the last mile was part of an integrated information service.[199] The DSL transmission service previously required to be unbundled by the *Computer Inquiries* rules likewise was limited to the "last mile" connection between the

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[193] *See generally* Tech Knowledge Comments at 1-39; Tech Knowledge Reply at 1-45.

[194] *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14911, para. 105; *Petition For Declaratory Ruling That AT&T's Phone-To-Phone IP Telephony Services Are Exempt From Access Charges*, WC Docket No. 02-361, Order, 19 FCC Rcd 7457, 7460-61, para. 6 (2004); *Cable Modem Order*, 17 FCC Rcd at 4823-24, para. 41; *Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, Order on Remand, 16 FCC Rcd 9751, 9755, 9770, paras. 8, 36 (2001); *Stevens Report*, 13 FCC Rcd at 11520, para. 39.

[195] *Brand X*, 545 U.S. at 989.

[196] *Id.* at 989.

[197] *Id.* at 992 ("[T]he statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering.").

[198] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5685-87, 5693-94, 5764-65, paras. 193, 195, 204, 364.

[199] As the *Stevens Report* explained, "[i]n offering service to end users," ISPs "do more than resell [] data transport services. They conjoin the data transport with data processing, information provision, and other computer-mediated offerings, thereby creating an information service." *Stevens Report*, 13 FCC Rcd at 11540, para. 81. The Commission further explained that, even though enhanced services were "offered '*over* common carrier transmission facilities,' [they] were themselves not to be regulated under Title II of the Act, *no matter how extensive their communications components*." *Stevens Report*, 13 FCC Rcd at 11514, para. 27 (emphasis added, quoting *Computer II Final Decision*, 77 FCC 2d at 428, para. 114); *see also, e.g.*, ACA Comments at 46 (asserting that the Commission employed a narrow definition of "basic service in the Computer II Final Decision—*i.e.*, *anything* more than basic is enhanced"); AT&T Comments at 64-65 (quoting *Stevens Report*, 13 FCC Rcd at 11514, para. 27); Hance Haney Comments at 4 ("Basic/telecommunications services were defined narrowly, and enhanced/information services were defined expansively."). Indeed, under the *Computer Inquiries*, non-facilities-based providers of enhanced services "'combin[ed] communications and computing components,' yet the Commission held that they should 'always be deemed enhanced' and therefore not subject to common carrier regulation." *Brand X*, 545 U.S. at 994 (quoting *Stevens Report*, 13 FC Rcd at 11530, para. 60).

end-user and the ISP.[200] Nor did any Justice in *Brand X* contest the view that, beyond the last mile, cable operators were offering an information service. Indeed, the *Title II Order*'s broad interpretation of "telecommunications service" stands in contrast to the views of Justice Scalia himself,[201] on which the *Title II Order* purports to rely.[202] Justice Scalia was skeptical that a telecommunications service classification of cable modem service would lead to the classification of ISPs as telecommunications carriers based on the transmission underlying their "connect[ions] to other parts of the Internet, including Internet backbone providers."[203] Yet the *Title II Order* reached essentially that outcome. The *Title II Order*'s interpretation of the statutory definitions did not merely lead it to classify "last mile" transmission as a telecommunications service. Rather, under the view of the *Title II Order*, even the transmissions underlying an ISP's connections to other parts of the Internet, including Internet backbone providers, were part of the classified telecommunications service.[204] Even if the *Title II Order*'s classification approach does not technically render the category of information services a nullity, the fact that its view of telecommunications services sweeps so much more broadly than previously considered possible provides significant support for our reading of the statute and the classification decision we make today.[205]

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[200] *See, e.g.*, *GTE Telephone Operating Cos. GTOC Tariff No. 1, GTOC Transmittal No. 1148*, CC Docket No. 98-79, Memorandum Opinion and Order, 13 FCC Rcd 22466, 22471-72, paras. 8-11 (1998).

[201] *See, e.g.*, *Brand X*, 545 U.S. at 1010-11 (Scalia, J., dissenting) ("When cable-company-assembled information enters the cable for delivery to the subscriber, the information service is already complete."); *see also, e.g.*, ADTRAN Comments at 7 ("[T]he functionality that Justice Scalia was addressing in *Brand X* was solely the last-mile connection -- not the complete package of Internet access service and capabilities that was reclassified in the *2015 Open Internet Order*."); AT&T Comments at 84 ("[T]he *Title II Order* embraced a position that none of the litigants or the Justices accepted: that broadband Internet access is a single, unitary telecommunications service. The *Title II Order* defined, as a telecommunications service, not merely a transmission link connecting a consumer to the broadband provider's network, but rather the entire Internet access service that the Commission had for decades concluded was an information service.").

[202] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5614-15, 5745, 5757-58, 5767-68, 5773, paras. 44-46, 333, 356, 366-67, 376.

[203] *Brand X*, 545 U.S. at 1010-11 (Scalia, J., dissenting).

[204] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5685-87, 5693-94, 5764-65, paras. 193, 195, 204, 364.

[205] *See, e.g.*, NCTA Comments at 21-25 ("Under [the *Title II Order*'s] reasoning, a whole host of other entities that make use of their own broadband transmission facilities to deliver Internet content likely would qualify as providers of 'telecommunications services' as well. . . . The potentially far-reaching implications of the *Title II Order*'s broad reading of the definition of 'telecommunications service' only underscore that a Title II classification is a poor fit for BIAS."). That the Commission previously identified policy concerns about Internet traffic exchange says nothing about classification, and thus is not to the contrary. *See, e.g.*, INCOMPAS Comments at 58-59 ("[E]ven the *2010 Open Internet Order* understood that the point at which a broadband provider's network connects to the Internet is capable of being used to circumvent the no-blocking rule."); *id*. at 62 (discussing prior investigations of interconnection issues in mergers). Nor did the *Advanced Services* proceedings identify interconnection obligations on providers of xDSL transmission as services necessary to ensure the provision of Internet access. *See, e.g.*, Scott Jordan Reply at 18 ("The next type of Internet access service that the Commission considered [in the *Advanced Services Order*] was *xDSL-based advanced service*, . . . including: . . . (3) interconnection arrangements with providers necessary to fulfill the service."); *id*. at 23 ("The *Advanced Services Remand Order* clarifies that the FCC has 'consistently rejected attempts to divide communications at any intermediate points of switching or exchanges between carriers', and that xDSL-based advanced service provides transmission between the customer's modem and the other party with which the customer is communicating, e.g., a website."). Instead, any interconnection obligations identified there were limited to interconnection between providers of common carrier xDSL transmission service and other telecommunications carriers (rather than providers of edge services or non-common carrier backbone services). *See Deployment of Wireline Services Offering Advanced Telecommunications Capability et al.*, CC Docket No. 98-147 et al., Memorandum Opinion and Order, and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24034, paras. 45, 46 (1998) (*Advanced Services Order*). The cited portion of the *Advanced Services Remand*

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55. In contrast, our approach leaves ample room for a meaningful range of "telecommunications services." Historically, the Commission has distinguished service offerings that "always and necessarily combine" functions such as "computer processing, information provision, and computer interactivity with data transport, enabling end users to run a variety of applications such as e-mail, and access web pages and newsgroups," on the one hand, from services "that carriers and end users typically use [] for basic transmission purposes" on the other hand.[206] Thus, an offering like broadband Internet access service that "always and necessarily" includes integrated transmission and information service capabilities would be an information service.[207] The Commission's historical interpretation thus gives full meaning to both "information service" and "telecommunications service" categories in the Act.

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Order does not even have anything to do with interconnection requirements or the scope of functions in an xDSL-based advanced service. Rather, it analyzed the jurisdiction of the traffic being carried over the service, which, under the traditional end-to-end analysis, was not limited in scope to any given service within a broader communications pathway. *See Deployment of Wireline Services Offering Advanced Telecommunications Capability et al*., CC Docket No. 98-147 et al., Order on Remand, 15 FCC Rcd 385, 391-92, para. 16 (1999) (*Advanced Services Remand Order*), *vacated*, *WorldCom v. FCC*, 246 F.3d 690 (D.C. Cir. 2001).

[206] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860-61, para. 9. Our interpretation thus stops far short of the view that "every transmission of information becomes an information service." Free Press Comments at 52 (emphasis in original); *see also, e.g.*, Public Knowledge Comments at 28-31 (asserting that a broad reading of "capability" consistent with the *Internet Freedom NPRM* would have made it unnecessary for the *Brand X* court to consider whether transmission was functionally integrated with information service capabilities and that such an interpretation would encompass "voice communications over the traditional telephone network" and would read both the definition of "telecommunications service" and the telecommunications management exception out of the statute); RISE Stronger Comments at 11 (objecting to an interpretation of "capability" it views as "impossibly overbroad").

[207] *See, e.g.*, *Brand X*, 545 U.S. at 992 ("One can pick up a pizza rather than having it delivered, and one can own a dog without buying a leash. By contrast, the Commission reasonably concluded, a consumer cannot purchase Internet service without also purchasing a connection to the Internet and the transmission always occurs in connection with information processing."). The distinction between services that "always and necessarily" include integrated transmission and information service capabilities and those that do not also highlights a critical difference between Internet access service and the service addressed in precedent such as the *Advanced Services Order*. The transmission underlying Internet access service that, prior to the *Wireline Broadband Classification Order*, carriers had been required by the *Computer Inquiries* to unbundle and offer as a bare transmission service on a common carrier basis to ensure its availability to competing enhanced service providers—and which did not itself provide Internet access—is another specific example of a service that does not "always and necessarily" include integrated transmission and information service capabilities. *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14875-76, para. 41 ("all wireline broadband Internet access service providers are no longer subject to the *Computer II* requirement to separate out the underlying transmission from wireline broadband Internet access service and offer it on a common carrier basis"); Interisle Consulting Group Comments at 4 (prior to the *Wireline Broadband Classification Order*, "DSL (in its raw form) was tariffed as Special Access"). The Commission naturally recognized at the time that the compelled common carriage offering of bare transmission was a telecommunications service, and we reject the view that such an acknowledgment is inconsistent with, or undercuts our reliance on, precedent classifying Internet access service as an integrated information service. *See, e.g.*, *Title II Order*, 31 FCC Rcd at 5737-38, para. 315 & nn.816-17 (quoting prior Commission observations about carriers' offering of broadband transmission underlying Internet access services as a stand-alone common carrier service as required by the *Computer Inquiries* rules at that time); *see also, e.g.*, AARP Comments at 4-5 (stating that "high capacity broadband telecommunications services were also covered under Title II" and citing precedent in that regard from 1998); *id*. at 95-96 ("[A]t the time of the *Stevens Report*, the services needed to reach one's ISP were governed by Title II."); Free Press Comments at 28 (discussing precedent from while the *Computer Inquiries* unbundling requirement for transmission underlying Internet access remained in effect); OTI New America Comments at 25 (similar); Barbara A. Cherry et al. Reply at 6 (similar); Free Press Reply at 13-14 (similar); Scott Jordan Reply at 6, 18, 20 (similar); OTI New America Reply at 10-13 (similar). In addition, the discussion of xDSL advanced services in the *Advanced Services Order* cited by commenters addressed the transmission service generally. *See, e.g.*, AARP Comments at 4-5 (quoting *Advanced Services Order*, 13 FCC Rcd at 24029-30, para.
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56. We reject assertions that the analysis we adopt today would necessarily mean that standard telephone service is likewise an information service. The record reflects that broadband Internet access service is categorically different from standard telephone service in that it is "*designed with* advanced features, protocols, and security measures so that it can integrate directly into electronic computer systems and enable users to electronically create, retrieve, modify and otherwise manipulate information stored on servers around the world."[208] Further, "[t]he dynamic network functionality enabling the Internet connectivity provided by [broadband Internet access services] is fundamentally different from the largely static one dimensional, transmission oriented Time Division Multiplexing (TDM) voice network."[209] This finding is consistent with past distinctions. Under pre-1996 Act MFJ precedent, for example, although the provision of time and weather services was an information service, when a BOC's traditional telephone service was used to call a third party time and weather service "the Operating Company does not 'provide information services' within the meaning of section II(D) of the decree; it merely transmits a call under the tariff."[210] In other words, the fundamental nature of traditional telephone service, and the commonly-understood purpose for which traditional telephone service is designed and offered, is to provide basic transmission—a fact not changed by its incidental use, on occasion, to access information services. By contrast, the fundamental nature of broadband Internet access service, and the commonly-understood purpose for which broadband Internet access service is designed and offered, is to enable customers to generate, acquire, store, transform, process, retrieve, utilize, and make available information. In addition, broadband Internet access service includes DNS and

35); Free Press comments at 28 (quoting *Advanced Services Order*, 13 FCC Rcd at 24030, para. 36); Scott Jordan Reply at 18 (citing *Advanced Services Order*, 13 FCC Rcd at 24026-27, 24034-35, paras. 29, 31 & Section V.A.3). It did not purport to be focused specifically on the use of xDSL transmission in connection with Internet access service, rather than addressing the classification of the stand-alone transmission service as a general matter. *See, e.g.*, *Advanced Services Order*, 13 FCC Rcd at 24027, para. 31 ("Once on the packet-switched network, the data traffic is routed to the location selected by the customer, for example, a corporate local area network or an Internet service provider."); *id*. at 24029-30, paras. 35, 36 ("xDSL and packet switching are simply transmission technologies. . . . An end-user *may* utilize a telecommunications service together with an information service, as in the case of Internet access." (emphasis added)); *id*. at 24033, para. 42 ("We note that in a typical xDSL service architecture, the incumbent LEC uses a DSLAM to direct the end-user's data traffic into a packet-switched network, and across that packet-switched network to a terminating point selected by the end-user. Every end-user's traffic is routed onto the same packet-switched network, and there is no technical barrier to any end-user establishing a connection with any customer located on that network (or, indeed, on any network connected to that network).").

[208] Verizon Reply at 32-33.

[209] CenturyLink Comments at 26; *see also* NCTA Comments at 18 (asserting that broadband service is fundamentally different from traditional, circuit-switched telephone service); CenturyLink Comments Appx. 2, Decl. of Phillip Bronsdon at 23-24 ("[T]he Internet is an open, dynamic system that includes an unrestricted community of providers, organizations and individuals that can evolve the functionality of the Internet quickly. In contrast, the TDM network is a static, generally closed system operated securely within the confines of each telecommunications provider based on stable, relatively mature and unchanging standards. Additionally, Internet protocols that control the functionality of the Internet, such as routing protocols, are themselves communicated in-band via the TCP/IP suite and create a dynamic, interactive network functionality that is essential to creating the dynamic and interactive characteristics inherent to BIA service usage. In contrast, the TDM network generally separates the signaling protocols from the information that is being transported, such that the control protocols are out-of-band on isolated secure networks within the control of each telecommunications provider. And, this signaling protocol serves functions based solely upon the set up and tear down of calls.").

[210] *U.S. v. West. Elec. Co., Inc.*, 578 F. Supp. 658, 661 (D.D.C. 1983); *see also, e.g.*, Harold Hallikainen Comments at 7-8, 13 (citing telephone calls to find out the time or weather or to retrieve fax on demand document and stating that "[n]one of these convert the telephone call to an 'information service'"); OTI New America Comments at 30 (similar); Scott Jordan Reply at 9 ("Telephone exchange service enables an end user to perform acquisition of information, namely the information transmitted via the telephone exchange service. Telephone exchange service also enables an end user to perform storing of information, e.g., using an answering machine. But clearly this does not make telephone exchange service an information service.").

caching functionalities, as well as certain other information processing capabilities. As such, we reject assertions that, under the approach we adopt today, any telephone service would be an information service because voice customers can get access to either automated information services or a live person who can provide information.[211]

57. Additionally, efforts to treat the *Stevens Report* as an outlier that should not have been followed in subsequent classification decisions—and should not be followed here—are ultimately unpersuasive. The clear recognition in the *Stevens Report* that the ISPs at issue were themselves providing data transmission as part of their offerings undercuts arguments seeking to distinguish the *Stevens Report* based on the theory that the transmission used to connect to ISPs typically involved common carrier services either directly (via a call to a dial-up ISP using traditional telephone service) or indirectly (with the ISP using common carrier broadband transmission as a wholesale input into its retail information service).[212] While the extent of data transmission provided by the ISPs that were found to be offering information services in the *Stevens Report* might be incrementally less than the transmission provided by the ISPs dealt with in subsequent information service classification decisions, that appears to be at most a difference in degree, rather than a difference in kind, and the record does not demonstrate otherwise.[213] Nor can the *Stevens Report*'s analysis and information service classification be distinguished on the grounds that the ISPs there generally did not own the facilities they used.[214]

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[211] *See, e.g.*, Public Knowledge Comments at 29 ("[U]nder the NPRM's interpretation, any telephone service would be (and always has been) an 'information service'"); Peha Reclassification Comments at 5 (stating that if the Commission concludes that "Internet access is not telecommunications because an IP address can sometimes be mapped to more than one server, some of which support caches, then the FCC must also conclude that telephone service is not telecommunications, because many calls to 800 numbers can be mapped to any one of a number of call centers around the country, and the initiator of the call does not specify which"); OTI New America Comments at 30; Free Press Comments at 54; Free Press Reply at 16 ("Landline services allow customers to 'store' information via voicemail and other data storage services, 'transform' and 'process' the human voice and tones into electrical signals, and 'generate' and 'make available' information via directories and other interactive voice response systems." (footnote omitted)); AARP Comments at 92.

[212] *See, e.g.*, Free Press Comments at 25-28, 31; INCOMPAS Comments at 42-43; Barbara A. Cherry et al. Reply at 5-6. Arguments that go even further and suggest that the service addressed in the *Stevens Report* did not provide transmission at all are clearly at odds with the text of the *Stevens Report* itself. *Compare, e.g.*, Scott Jordan Reply at 18 ("Dial-up Internet access service thus excludes the underlying telecommunications, which was provided in part by the telephone exchange service than an end user separately obtained in order to 'dial-up.'") *with, e.g.*, *Stevens Report*, 13 FCC Rcd at 11532-33, para. 60 (discussing how ISPs engage in data transport even though they often lack their own facilities).

[213] *See, e.g.*, AT&T Reply at 59 ("Internet access functionality *itself* has the same basic attributes whether it is offered by dial-up ISPs or broadband ISPs; the only difference is that broadband ISPs bundle Internet access with last-mile transmission." (emphasis in original)).

[214] *See, e.g.*, Free Press Comments at 26 (citing statements from the *Stevens Report* that "'Internet access providers, typically, own no telecommunications facilities'" and thus would "'lease lines and otherwise acquire telecommunications, from telecommunications providers,'" and arguing that "[t]his emphatically does not describe the facilities-based BIAS providers of today"); Harold Hallikainen Comments at 4-5 ("Internet Service Providers today own copper pairs for DSL, coaxial cable for cable modem service, and optical fiber for fiber Internet access. . . . ISPs that do own telecommunications facilities . . . should be considered telecommunications services and regulated in the same manner as other telecommunications services."); OTI New America Comments at 25 ("[D]ial-up providers typically leased transmission lines (a telecom service) from another provider or required their customers to have access to a separate transmission line, such as their phone provider," a "distinction[that] informed the Commission's earlier determination that dial up 'internet access service' . . . was an information service."); *id*. at 27-28 ("Today, BIAS providers rarely lease telecommunication services from other carriers. . . . The analyses in the *Stevens Report* and *Cable Modem Order* no longer apply to broadband internet access, and therefore do not provide a contemporary basis for reclassifying BIAS back to Title I."); Public Knowledge Comments at 60 (citing "the open access rules that were in effect at the time of the Stevens Report"); Free Press Reply at 15 ("Broadband providers try

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Although the *Stevens Report* observed that the analysis of whether a single integrated service was being offered was "more complicated when it comes to offerings by facilities-based providers," it did not prejudge the resolution of that question.[215] Thus, there is no reason to simply assume that it was inappropriate for the Commission to build upon the *Stevens Report* precedent when analyzing service offerings from facilities-based providers beginning in the *Cable Modem Order*.[216] Nor do commenters identify material technical differences when facilities ownership is involved that would mandate a different classification analysis.[217] Finally, our reliance on classification precedent does not rest on the *Stevens Report* alone, but draws from the full range of classification precedent, both pre- and post-1996 Act. This reliance notably includes not only the Commission's classification decisions, but the Supreme Court's subsequent analysis in *Brand X*. And although some commenters criticize the lack of express consideration of the possible application of the telecommunications management exception in the *Stevens Report*, our evaluation of the pre-1996 Act MFJ and *Computer Inquiries* precedent better accords with outcome of that *Report* and the subsequent classification decisions than it does with the *Title II Order* in that regard.[218]

3. Other Provisions of the Act Support Broadband's Information Service Classification

58. We also find that other provisions of the Act support our conclusion that broadband Internet access service is best classified as an information service.[219] For instance, Congress codified its view in section 230(b)(2) of the Act, stating that it is the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[220] This statement confirms that the free market

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to appropriate the *Stevens Report*, but as we have shown that decision dealt with over-the-top 90s-era dial-up ISPs and not modern facilities-based BIAS.").

[215] *Stevens Report*, 13 FCC Rcd at 1153, para. 60.

[216] *See, e.g.*, Free Press Comments at 27 n.45 ("[S]ubsequent actions to import [the *Stevens Report*] analysis wholesale are the demarcation point for the Commission's original errors made in the Powell era"). Given that the Commission's inquiries under section 706 of the 1996 Act did not involve the classification of broadband Internet access service, we likewise reject the argument that observations there regarding "broadband service" or the like have any bearing on, or otherwise undercut, the *Cable Modem Order* and subsequent broadband Internet access service classification decisions. *See, e.g.*, OTI New America Reply at 18 ("The *Cable Modem Order* was also inconsistent with the Commission's early Section 706 inquiries, which clearly stated that 'broadband service does not include content, but consists only of making available a communications path on which content may be transmitted and received.'").

[217] While the *Stevens Report* recognized that under *Computer Inquires* precedent "offerings by non-facilities-based providers combining communications and computing components should always be deemed enhanced," *Stevens Report*, 13 FCC Rcd at 11530, para. 60, had its analysis simply been carrying forward that approach most of its analysis would have been unnecessary (since Internet access clearly did combine communications and computing components). Thus, whether or not the more extensive analysis set forth in the *Stevens Report* was necessary to find Internet access provided by non-facilities-based ISPs to be an information service, that analysis cannot be said to be a mere relic of the *Computer Inquiries* approach to non-facilities based providers.

[218] *See, e.g.*, Scott Jordan Reply at 9 n.19. We reject similar criticisms of other precedent for the same reason. *See, e.g.*, *id*. at 12 ("The *Cable Modem Declaratory Ruling* . . . neglected to determine whether [DNS] fell within the telecommunications system management exception when offered by a cable modem provider.").

[219] We do not assert that the language in sections 230 and 231 is determinative of the information service classification; rather, we find it to be supportive of our analysis of the textual provisions at issue. As such, we find Public Knowledge's assertions that the Commission's reasoning "would overrule the Supreme Court's holding in *Brand X* . . . [in which] the Court ruled that the Communications Act does not make explicit the correct classification of BIAS" inapposite. *See* Public Knowledge Comments at 32.

[220] 47 U.S.C. § 230(b)(1).

approach that flows from classification as an information service is consistent with Congress's intent. In contrast, we find it hard to reconcile this statement in section 230(b)(2) with a conclusion that Congress intended the Commission to subject broadband Internet access service to common carrier regulation under Title II.[221]

59. Additional provisions within sections 230 and 231 of the Act lend further support to our interpretation. Section 230(f)(2) defines an interactive computer service to mean "*any information service*, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system *that provides access to the Internet* and such systems operated or services offered by libraries or educational institutions."[222] Thus, on its face, the plain language of this provision appears to reflect Congress' judgment that Internet access service is an information service.[223]

60. Section 230 states that an "information service" includes "a service or system that provides access to the Internet," and we disagree with commenters who read the definition of "interactive computer service" differently. Specifically, we disagree with commenters asserting that it is unclear whether the clause "including specifically a service . . . that provides access to the Internet" modifies "information service" or some other noun phrase, such as "access software provider" or "system."[224] We think it a more reasonable interpretation that the phrase "service . . . that provides access to the Internet" modifies the noun phrase "information service."[225] Similarly, we disagree that section 230(f)(2) proves only "that there exist information services that provide access to the internet, not that all services that provide access to the internet are information services."[226] On the contrary, we agree with AT&T that "the formula 'any X, including specifically a Y,' does logically imply that all Ys are Xs."[227]

61. Reliance on section 230(f)(2) to inform the Commission's interpretations and applications of Titles I and II accords with widely accepted canons of statutory interpretation.[228] The Supreme Court has recognized there is a "natural presumption that identical words used in different parts of the same act are intended to have the same meaning."[229] And there is nothing in the context of either section that overcomes the presumption. Indeed, the similarity of circumstances confirms the presumption of similar meaning, as the deregulatory approach to information services embodied in Titles I and II, as well as the deregulatory policy of section 230, were all adopted as part of the 1996 Act.[230] Thus, we disagree with the *Title II Order*'s argument that giving section 230 its plain meaning would be "an oblique" way to "settle the regulatory status of broadband Internet access."[231] On the contrary, we

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[221] *See, e.g.*, ACA Comments at 55.

[222] 47 U.S.C. § 230(f)(2) (emphasis added).

[223] *See, e.g.*, ACA Comments at 53; AT&T Comments at 72; Bennett Comments at 12; NCTA Comments at 25-26; Reason Foundation Comments at 9.

[224] *See, e.g.*, INCOMPAS Comments at 67; OTI New America Comments at 34.

[225] *See* AT&T Reply at 68; 47 U.S.C. § 230(f)(2); *see also* Verizon Reply at 36, n.154.

[226] Public Knowledge Comments at 36.

[227] AT&T Reply at 68.

[228] *See* Free State Foundation Reply at 24-25.

[229] *Atlantic Cleaners & Dryers v. United States*, 286 U.S. 427, 433 (1932); *Sorenson v. Sec'y of the Treasury*, 475 U.S. 851, 860 (1986) ("The normal rule of statutory construction assumes that 'identical words used in different parts of the same act are intended to have the same meaning'") (citations omitted); *see also* AT&T Comments at 72.

[230] *See* Free State Foundation Reply at 25.

[231] *Title II Order*, 30 FCC Rcd at 5777, para. 386. This argument was also upheld as reasonable by the majority in *USTelecom*. *USTelecom*, 825 F.3d at 703 (citations omitted); *see also* Public Knowledge Comments at 34 ("[I]t is

(continued….)

agree that "it is hardly 'oblique' for Congress to confirm in section 230 that Internet access should be classified as an unregulated information service when elsewhere in the same legislation Congress codifies a definition of 'information services' that was long understood to include gateway services such as Internet access."[232] And while the *USTelecom* court did not find this definition determinative on the issue, we find that "it is nonetheless a strong indicator that Congress was more comfortable with the prevailing view that provision of Internet access is not a telecommunications service, and should not be subject to the array of Title II statutory provisions."[233] We find inapplicable the *USTelecom* court's invocation of the principle that "Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions."[234] Section 230 did not alter any fundamental details of Congress's regulatory scheme but was part and parcel of that scheme, and confirmed what follows from a plain reading of Title I—namely, that broadband Internet access service meets the definition of an information service.[235]

62. Section 231, inserted into the Communications Act a year after the 1996 Act's passage,[236] similarly lends support to our conclusion that broadband Internet access service is an information service. It expressly states that "Internet access service" "does not include telecommunications services," but rather "means a service that enables users to access content, information, electronic mail, or other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers."[237] Further, the carve-outs in section 231(b)(1)-(2) differentiate the provision of telecommunications services and the provision of Internet

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unfathomable that Congress would have buried such a fundamental issue—the appropriate regulatory classification of BIAS—with the ancillary provisions of the Communications Act where Sections 230 and 231 reside.").

[232] AT&T Comments at 72.

[233] WISPA Comments at 25; *see also* Comcast Comments at 24-25; NCTA Comments at 26 ("[E]ven if Section 230 does not preclude a 'telecommunications service' classification for BIAS, it plainly counsels against it.").

[234] *USTelecom*, 825 F.3d at 703 (citing *Whitman v. American Trucking Ass'ns*, 531 U.S. 457, 468 (2001)).

[235] Free State Foundation Reply at 25-26; Comcast Comments at 7-8. The legislative history of section 230 also lends support to the view that Congress did not intend the Commission to subject broadband Internet access service to Title II regulation. The congressional record reflects that the drafters of section 230 did "not wish to have a Federal Computer Commission with an army of bureaucrats regulating the Internet." *See* 141 Cong. Rec. H8470 (daily ed. Aug. 4, 1995) (statement of Rep. Cox). We likewise reject arguments premised on the theory that we are treating definitions in section 230 and 231 as dispositive, rather than relying on them to inform our understanding of Congress' intent as revealed by the text and structure of the Act more broadly. *See, e.g.*, Lazarus Comments at 6 (asserting that "[t]hese sections address the specific problems of immunizing ISPs that may carry offensive content (Section 230) and of the Internet material that is harmful to minors (Section 231) . . . [and] do not purport to regulate any other aspect of the Internet. If Congress had meant these definitions to have general applicability, it would have put them among the other general definitions in Section 153."); OTI New America Comments at 34-35 (asserting that "[t]he Section 230 and 231 arguments should be rejected" as "the NPRM claims that Congress hid the elephant of mandatory information services classification of all internet services in the mouse holes of Section 230 and 231, which are separate statutes addressing specifically indecent online content with their own definition sections"); New Media Rights at 6 (asserting that section 230 protects a variety of entities from legal claims based on the behavior and illegal acts of third parties online and has nothing to do with rules governing the behavior of ISPs).

[236] Child Online Protection Act, Pub. L. No. 105-277, 112 Stat. 2681-736, § 1403 (codified at 47 U.S.C. § 231), *enjoined from enforcement in alternative part by American Civil Liberties Union v. Mukasey*, 534 F.3d 181 (3d. Cir. 2008) (prohibiting enforcement of COPA's civil and criminal penalties contained in 47 U.S.C. § 231(a)(1)), *cert. denied* 555 U.S. 1137.

[237] 47 U.S.C. § 231(e)(4).

access service.[238] It is hard to imagine clearer statutory language. The Commission has consistently held that categories of telecommunications service and information service are mutually exclusive; thus, because it is an information service, Internet access cannot be a telecommunications service.[239] On its face then, this language strongly supports our conclusion that, under the best reading of the statute, broadband Internet access service is an information service, not a telecommunications service.[240]

63. We also find that the purposes of the 1996 Act are better served by classifying broadband Internet access service as an information service. Congress passed the Telecommunications Act to "promote competition and reduce regulation."[241] Further, as a bipartisan group of Senators stated, "[n]othing in the 1996 Act or its legislative history suggests that Congress intended to alter the current classification of Internet and other information services or to expand traditional telephone regulation to new and advanced services."[242] Or as Senator John McCain put it, "[i]t certainly was not Congress's intent in enacting the supposedly pro-competitive, deregulatory 1996 Act to extend the burdens of current Title II regulation to Internet services, which historically have been excluded from regulation."[243] It stands these goals on their head for the Commission, as deployment of advanced services reaches the mainstream of Americans' lives, to perpetuate the very Title II regulatory edifice that the 1996 Act sought to dismantle.[244] An information service classification will "reduce regulation" and preserve a free market "unfettered by Federal or State regulation."

64. Finally, we observe that the structure of Title II appears to be a poor fit for broadband Internet access service. Indeed, numerous Title II provisions explicitly assume that all telecommunications services are a telephone service. For example, section 221 addresses special

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[238] *Compare* 47 U.S.C. § 231(b)(1) (exempting "a telecommunications carrier engaged in the provision of a telecommunications service"), *with* 47 U.S.C. § 231(b)(2) (exempting "a person engaged in the business of providing an Internet access service").

[239] *Stevens Report*, 13 FCC Rcd at 11507-08, para. 13; *Cable Modem Order*, 17 FCC Rcd at 4823-24, para. 41; *see also* AT&T Comments at 72-73 (asserting that the final sentence of section 231(e)(4), which Congress enacted in October 1998, approximately seven months after the *Stevens Report* confirmed that Internet access is an information service, indicates once more that Congress agreed with the Commission that an Internet access service is not a "telecommunications service" within the meaning of section 3 of the Act). Our interpretation of "telecommunications service" and "information service" as mutually exclusive ways to classify a given service thus demonstrates the relevance of section 231 notwithstanding that it does not expressly define broadband Internet access service as an information service. *See, e.g.*, Peha Reclassification Comments at 11 (asserting that there is nothing in section 231 that defines an information service or states that Internet access service is an information service).

[240] Verizon Comments at 39-40; Free State Foundation Comments at 16-17. Nothing in the text of section 231 reveals that the use of "Internet access service" there is limited to dial-up Internet access. To the contrary, it would seem anomalous for Congress only to exempt entities providing dial-up Internet access and not other forms of Internet access from the prohibitions of section 231(a). *See* 47 U.S.C. § 231(b). We thus are unpersuaded by arguments advocating a narrower interpretation of "Internet access service" in section 231. *See, e.g.*, OTI New America Comments at 35 (arguing that Congress used "Internet access service" to mean dial-up service, and was not specifically referring to broadband Internet access service).

[241] Preamble, Telecommunications Act of 1996.

[242] Letter from Senators John Ashcroft, Wendell Ford, John Kerry, Spencer Abraham, and Ron Wyden to the Honorable William E. Kennard, Chairman, FCC, at 1 (Mar. 23, 1998) (Five Senators Letter), http://apps.fcc.gov/ecfs/document/view?id=2038710001.

[243] *Stevens Report*, 13 FCC Rcd at 11519, para. 37 (quoting Letter from Senator John McCain to the Honorable William E. Kennard, Chairman, FCC).

[244] Alaska Communications Comments at 5; Verizon Reply at 36, n.154.

provisions related to telephone companies,[245] section 251 addresses the obligations of local exchange carriers and incumbent local exchange carriers,[246] and section 271 addresses limitations on Bell Operating Companies' provision of interLATA services.[247] Therefore, it is no surprise that the *Title II Order* found that many provisions of Title II were ill-suited to broadband Internet access services, and the Commission was forced to, on its own motion, forbear either in whole or in part on a permanent or temporary basis from 30 separate sections of Title II as well as from other provisions of the Act and Commission rules.[248] We find that the significant forbearance the Commission deemed necessary in the *Title II Order* strongly suggests that the regulatory framework of Title II, which was specifically designed to regulate telephone services, is unsuited for the dissimilar and dynamic broadband Internet access service marketplace.[249]

B. Reinstating the Private Mobile Service Classification of Mobile Broadband Internet Access Service

65. Having determined that broadband Internet access service, regardless of whether offered using fixed or mobile technologies, is an information service under the Act, we now address the appropriate classification of mobile broadband Internet access service under section 332 of the Act. We restore the prior longstanding definitions and interpretation of this section and conclude that mobile broadband Internet access service should not be classified as a commercial mobile service or its functional equivalent.

66. *Background*. Section 332 of Title III, enacted by Congress as part of the Omnibus Budget Reconciliation Act of 1993 (the Budget Act),[250] provides a specific framework that applies to providers of "commercial mobile service." The section defines "commercial mobile service" as: "any mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission."[251] "Interconnected service," in turn, is defined as "service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission)."[252] In 1994, the Commission adopted regulations implementing this section, codifying the

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[245] 47 U.S.C. § 221.

[246] Many of these obligations are of particular relevance in the context of telephone services. *See, e.g.*, 47 U.S.C. § 251(b)(2) (local number portability), *id.* § 251(b)(3) (dialing parity); *id*. § 251(c)(2) (interconnection for the exchange of telephone exchange service and exchange access traffic).

[247] For example, to obtain authority to offer in-region interLATA services, the BOCs have to offer a number of functions of particular relevance to the provision of telephone service. *See, e.g.*, 47 U.S.C. § 271(c)(1)(B)(vi)-(xii) (obligations regarding switching, numbering and dialing-related issues, white pages, directory assistance, and the like).

[248] *See Title II Order*, 30 FCC Rcd at 5834, para. 486 (sections 254(d), (g), and (k)); 5825, para. 470 (section 225(d)(3)(B)); 5835, para. 488 (section 254(d)'s first sentence); 5841, para. 497 (section 203); 5845, para. 505 (section 204); 5845, para. 506 (section 205); 5846, para. 508 (sections 211, 213, 215, 218, 219, 220); 5847-49, paras. 509-12 (section 214 except for subsection (e)); 5849-50, para. 513 & n.1571 (section 251 except for subsection (a)(2), section 256); 5852, para. 515 (section 258).

[249] *See, e.g.*, ITIF Comments at 6 (arguing *Title II Order*'s forbearance presents slippery slope that the Commission should remove itself from and exposes Title II as a kludge of a legal mechanism); Verizon Comments at 41; TechFreedom Reply at 27-34, 49-52; Comcast Comments at 25 (asserting that "the need to forbear from so much of Title II in the *Title II Order* should have been a red flag that it was 'tak[ing] a wrong interpretive turn,' and provides yet another basis for embracing an information service classification here" (*citing Util. Air Regulatory Group v. EPA,* 134 S. Ct. 2427, 2446 (2014))).

[250] Pub. L. No. 103-66, 107 Stat. 312 (1993).

[251] 47 U.S.C. § 332(d)(1).

[252] 47 U.S.C. § 332(d)(2).

definition of "commercial mobile service" under the term "commercial mobile radio service" (CMRS).[253] Looking at the statute's text, structure, legislative history, and purpose, the Commission defined the "public switched network" as "[a]ny common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the North American Numbering Plan in connection with the provision of switched services."[254] It defined "interconnected service" as "a service that gives subscribers the capability to communicate . . . [with] *all* other users on the public switched network."[255]

67. Section 332 distinguishes commercial mobile service from "private mobile service," defined as "any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service, as specified by regulation by the Commission."[256] In 1994, the Commission established its functional equivalence test, which starts with a presumption that "a mobile service that does not meet the definition of CMRS is a private mobile radio service."[257] Overcoming this presumption requires an analysis of a variety of factors to determine whether the mobile service in question is the functional equivalent of commercial mobile service, including "consumer demand for the service to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service would prompt customers to change from one service to the other; and market research information identifying the targeted market for the service under review."[258] Emphasizing the high bar it had set, the Commission expected that "very few mobile services that do not meet the definition of CMRS will be a close substitute for a commercial mobile radio service."[259]

68. The Act treats providers of commercial mobile service as common carriers,[260] and the legislative history of the 1996 Act suggests that Congress intended the definition of "telecommunications service" to include commercial mobile service.[261] In contrast, the Act prohibits the Commission from treating providers of private mobile service as common carriers.[262]

69. In 2007, the Commission found that wireless broadband Internet access service was not a commercial mobile service because it did not meet the definition of an "interconnected service" under the Act and the Commission's rules.[263] It found that wireless broadband Internet access was not

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[253] *Implementation of Sections 3(n) and 332 of the Communications Act; Regulatory Treatment of Mobile Services,* GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411, 1431-37, paras. 50-60 (1994) (*Second CMRS Report and Order*). The commercial mobile service provisions of the Act are implemented in section 20.3 of the Commission's rules, which uses the term "commercial mobile radio service" (CMRS) instead of "commercial mobile service." We use "CMRS" and "commercial mobile service" interchangeably here.

[254] 47 CFR § 20.3 (2014).

[255] 47 CFR § 20.3 (2014) (emphasis added).

[256] 47 U.S.C. § 332(d)(3).

[257] *Second CMRS Report and Order*, 9 FCC Rcd at 1447, para. 79.

[258] 47 CFR § 20.9(a)(14)(ii)(B), (C). We note that, in another Order adopted today, we are recodifying these factors under section 20.3 of the Commission's rules, but not modifying their substance. *See Amendments To Harmonize and Streamline Part 20 of the Commission's Rules Concerning Requirements for Licensees To Overcome a CMRS Presumption*, Report and Order, FCC 17-167 (Dec. 18, 2017) (*CMRS Presumption Order*).

[259] *Second CMRS Report and Order*, 9 FCC Rcd at 1447, para. 79.

[260] 47 U.S.C. § 332(c)(1)(A).

[261] H.R. Conf. Rep. No. 104-458 at 125 (1996) ("This definition [of 'telecommunications service'] is intended to include commercial mobile service.").

[262] 47 U.S.C. § 332(c)(2).

[263] *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5916, para. 41.

"interconnected" with the "public switched network" because it did not use the North American Numbering Plan, which limited "subscribers' ability to communicate to or receive communication from all users in the public switched network."[264] The Commission concluded that section 332 and the Commission's rules "did not contemplate wireless broadband Internet access service as provided today" and that a commercial mobile service "must still be interconnected with the local exchange or interexchange switched network as it evolves."[265]

70. In the *Title II Order*, the Commission reversed course. First, the Commission changed definitions of two key terms within the definition of commercial mobile service.[266] It broadened the definition of the term "public switched network" to include services that use "public IP addresses."[267] And it redefined the term "interconnected service" by deleting the word "all" from the requirement that the service give subscribers the capability to communicate with "*all* other users on the public switched network," so that a service would be interconnected even if users of such a service could not communicate with all other users.[268] By manipulating these definitions, the Commission engineered a conclusion that mobile broadband Internet access was interconnected with the public switched network and was an interconnected service under section 332.

71. Second, the *Title II Order* found that even if it had not changed the definitions, it could change the scope of the service to meet them. Specifically, the Commission found that "users have the 'capability' . . . to communicate with NANP numbers using their broadband connection through the use of VoIP applications."[269] Accordingly it found that, by including services not offered by the mobile broadband Internet access service provider as part of the service, mobile broadband Internet access service would now meet the regulatory definition of "interconnected service" adopted in 1994.[270]

72. Third, the *Title II Order* eschewed the functional equivalence test contained in the Commission's rules to find that mobile broadband Internet access service was functionally equivalent to commercial mobile service. Rather than apply that test, the Commission reasoned that the two were functionally equivalent because "like commercial mobile service, [mobile broadband Internet access service] is a widely available, for profit mobile service that offers mobile subscribers the capability to send and receive communications on their mobile device to and from the public."[271]

73. In the *Internet Freedom NPRM*, the Commission proposed to "restore the meaning of 'public switched network' under section 332(d)(2) to its pre-*Title II Order* focus on the traditional public switched telephone network" and "to return to our prior definition of 'interconnected service.'"[272] The Commission further proposed to return to the analysis of the *Wireless Broadband Internet Access Order* and find that mobile broadband Internet access service was a private mobile service.[273] Finally, it proposed to reconsider the *Title II Order*'s departure from the functional equivalence test codified in our

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[264] *Id.* at 5917-18, para. 45.

[265] *Id.* at 5918, n.119.

[266] *Title II Order*, 30 FCC Rcd at 5778, para. 388.

[267] *Id.* at 5779, para. 391.

[268] *Id.* at 5779, 5788, 5890, n.1175, paras. 390, 402.

[269] *Id.* at 5786, para. 400.

[270] *See id.*

[271] *Id.* at 5789, para. 404. In *USTelecom*, the D.C. Circuit had no occasion to address the *Title II Order*'s approach to functional equivalency. 825 F.3d at 717.

[272] *Internet Freedom NPRM*, 32 FCC Rcd at 4454, paras. 56-57.

[273] *Id.* at 4455, para. 59.

rules.[274]

74. *Discussion*. We find that the definitions of the terms "public switched network" and "interconnected service" that the Commission adopted in the 1994 *Second CMRS Report and Order* reflect the best reading of the Act, and accordingly, we readopt the earlier definitions. We further find that, under these definitions, mobile broadband Internet access service is not a commercial mobile service.

75. We find that the Commission's original interpretation of "public switched network" was more consistent with the ordinary meaning and commonly understood definition of the term and with Commission precedent.[275] On multiple prior occasions before section 332(d)(2) was enacted, the Commission used the term "public switched network" to refer to the traditional public switched telephone network.[276] In 1981, for example, the Commission noted that "the public switched network interconnects all telephones in the country."[277] In 1992, the Commission described its cellular service policy as "encourag[ing] the creation of a nationwide, seamless system, interconnected with the public switched network so that cellular and landline telephone customers can communicate with each other on a universal basis."[278] Courts also used the term "public switched network" when referring to the traditional telephone network.[279] Based on this history of usage of the term, the Commission, in 1994, tied its definition of the term "public switched network" to the traditional switched telephone network. We find this approach appropriately reflects the fundamental canon of statutory construction that "unless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning."[280]

76. We also find that the Commission's prior interpretation is more consistent with the text of

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[274] *Id.* at 4455-56, para. 61.

[275] *See, e.g.*, T-Mobile Comments at 16; Verizon Comments at 45.

[276] *See, e.g.*, *Applications of Winter Park Tel. Co.*, Memorandum Opinion and Order, 84 FCC 2d 689, 690, para. 2 & n.3 (1981) (*Winter Park Order*); *Amendment of Part 22 of the Commission's Rules Relating to License Renewals in the Domestic Public Cellular Radio Telecommunications Service*, Report and Order, 7 FCC Rcd 719, 720, para. 9 (1992) (*License Renewal Order*); *Provision of Access for 800 Service*, Memorandum Opinion and Order on Reconsideration and Second Supplemental Notice of Proposed Rulemaking, 6 FCC Rcd 5421, para. 1 & n.3 (1991); *Telecommunications Services for Hearing-Impaired and Speech-Impaired Individuals, and the Americans with Disabilities Act of 1990*, Notice of Proposed Rulemaking, 5 FCC Rcd 7187, 7190, para. 20 (1990).

[277] *See Winter Park Order*, 84 FCC 2d at 690, para. 2 & n.3.

[278] *See License Renewal Order*, 7 FCC Rcd at 720, para. 9.

[279] *See Ad Hoc Telecommunications Users Committee v. FCC*, 680 F.2d 790, 793 (D.C. Cir. 1982) (public switched network is the "same network over which regular long distance calls travel"); *Public Util. Comm'n v. FCC*, 886 F. 2d 1325, 1327, 1330 (D.C. Cir 1989) (using the terms "public switched telephone network" and "public switched network" interchangeably).

[280] *Perrin v. United States*, 444 U.S. 37, 42 (1979); *see also Evans v. United States*, 504 U.S. 255, 260 n.3 (1992) (stating that where a "word is obviously transplanted from another legal source, whether common law or other legislation, it brings the old soil with it" (quoting Justice Felix Frankfurter, *Some Reflections on the Reading of Statutes*, 47 Colum. L. Rev. 527, 537 (1947) (internal quotation marks omitted)). We find that the legislative history of the Budget Act further supports this view. One commenter notes that the Budget Act conferees chose the Senate version of the relevant statutory definitions, including the use of the term "public switched network," over the House version, which used the term "public switched telephone network," and argues that Congress thereby rejected the latter term. *See* OTI New America Reply at 65-66. We note, however, that the conferees also expressly identified the substantive differences between the House and Senate versions of the definitions, and notably absent from their list was any contrast between the Senate's use of "public switched network" and the House's use of "public switched telephone network," suggesting that the conferees did not view the two terms as a significant difference. *See* H.R. Conf. Rep. 103-213, 496 (1993).

section 332(d)(2), in which Congress provided that commercial mobile service must provide a service that is interconnected with "*the* public switched network."[281] We find that the use of the definite article "the" and singular term "network" shows that Congress intended "public switched network" to mean a single, integrated network. We therefore agree with commenters who argue that it was not meant to encompass multiple networks whose users cannot necessarily communicate or receive communications across networks.[282] Consistent with Congress's directive to define "*the* public switched network," the restored definition reflects that the public switched network is a singular network that "must still be interconnected with the local exchange or interexchange switched network as it evolves," as opposed to multiple networks that need not be connected to the public telephone network.[283] That the Commission's original interpretation better reflects Congressional intent is further evidenced by the fact that, although Congress has amended the Communications Act and section 332 on multiple occasions since the Commission defined the term, it has never changed the Commission's interpretation.[284]

77. We also restore the definition of "interconnected service" that existed prior to the *Title II Order*. Prior to that Order, the term was defined under the Commission's rules as a service "that gives subscribers the capability to communicate to or receive communication from *all* other users on the public switched network."[285] The *Title II Order* modified this definition by deleting the word "all," finding that mobile broadband Internet access service should still be considered an interconnected service even if it only enabled users to communicate with "some" other users of the public switched network rather than all.[286] We agree with commenters who argue that the best reading of "interconnected service" is one that enables communication between its users and all other users of the public switched network.[287] This reading ensures that the public switched network remains the single, integrated network that we find Congress intended in Section 332(d)(2), as reflected in the statutory definition of "interconnected service" as one that is interconnected with "the public switched network."[288]

(Continued from previous page)

[281] 47 U.S.C. § 332(d)(2) (emphasis added).

[282] *See, e.g.*, CTIA Comments at 49-50; T-Mobile Comments at 16; Verizon Comments at 46; CTIA Reply at 30-36.

[283] *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5918, para. 45, n.119.

[284] *See, e.g.*, Telecommunications Act of 1996, Pub. L. No. 104-104, § 704(b) (amending section 332 of the Communications Act). Similarly, we do not agree with commenters arguing that the availability of VoIP applications that use numbering systems that allow IP-calls to NANP numbers, and the consumer use of such applications, supports the inclusion of Internet Protocol addresses in the definition of the public switched network. *See* Letter from Erica Portnoy and Dr. Jeremy Gillula, Electronic Frontier Foundation to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Dec. 6, 2017) at 2; OTI New America Comments at 84-87; *see also* Letter from Scott Jordan to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 2-3 (filed Dec. 11, 2017) (pointing to ENUM as "a standard that allows an application to use broadband Internet access service to address the party with which they wish to communicate using a NANP address."). As we further discuss elsewhere in connection with the term "interconnected service," we find the best interpretation is to classify a service under section 332 based solely on the nature of the service offered. Even if we were to consider such applications, however, we find that the public switched telephone network and the Internet are and will continue to be distinct and separate networks, and cannot be considered a singular, integrated network as intended by the term "the public switched network." *See also* T-Mobile Comments at 16-17; Verizon Comments at 48; AT&T Reply at 84. The deployment of the Internet of Things (IoT), for example, will mean a dramatic increase in the number of non-VoIP-capable end-points, such as IP-enabled televisions, washing machines, and thermostats, and other smart devices. *See* Verizon Comments at 48.

[285] 47 CFR § 20.3 (2014) (emphasis added).

[286] *See Title II Order*, 30 FCC Rcd at 5787-88, para. 402.

[287] *See, e.g.*, AT&T Comments at 94; Verizon Comments at 49.

[288] *See* 47 U.S.C. § 332(d)(2); 47 CFR § 20.3. The *Title II Order* rejected this reading on the ground that the Commission has previously recognized that interconnected services may be limited in certain ways. *See Title II*

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78. Some commenters who argue that the *Title II Order*'s revised definitions should be maintained point to Congress's delegation of interpretational authority to the Commission and the Commission's previous position that it could define the public switched network based on new technology and consumer demand.[289] In defining the terms "public switched network" and "interconnected service" in the *Second CMRS Report and Order*, however, the Commission recognized that commercial mobile service must still be interconnected with the local exchange or interexchange switched network, and it stated that "any switched common carrier service that is interconnected with the traditional local exchange or interexchange switched network will be defined as part of that network for purposes of our definition of 'commercial mobile radio services.'"[290] Further, although the *Title II Order* found that the revised definitions adopted at that time were warranted as better reflecting current technological developments, including the "rapidly growing and virtually universal use of mobile broadband service" and the "universal access provided . . . by and to mobile broadband," the Commission expressly noted that its determination was "a policy judgment that section 332(d) expressly delegated to the Commission, consistent with its broad spectrum management authority under Title III."[291] We find that this analysis places undue weight on the wide availability of a mobile service, as being effectively available to a substantial portion of the public is merely one of the definitional criteria.[292] In light of

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Order, 30 FCC Rcd at 5787-88, para. 402. While an interconnected service is required to provide its users with the capability to communicate with or receive communication from all other users of the public switched network, the Commission has permitted an interconnected service to restrict access to the public switched network in certain limited ways (such as the blocking of 900 numbers). This limited exception to general access has existed since the original definition of the term "interconnected service" was adopted, *see* 47 CFR § 20.3 (providing that a mobile service "offers interconnected service even if the service allows subscribers to access the public switched network only during specified hours of the day, or if the service provides general access to points on the public switched network but also restricts access in certain limited ways"), and the record does not demonstrate that it has caused confusion or misunderstandings about what services may be considered interconnected. Accordingly, we will continue to apply the definition of "interconnected service" in this fashion, and we see no need to codify any language further clarifying the exception. We agree with Verizon, however, that "[t]here is a massive difference between limited, targeted restrictions that deny access to certain points on the network and the situation envisioned by the *Title II Order*, where millions of users on what is ostensibly the same network are incapable of reaching each other." Verizon Comments at 49, n.184.

[289] AARP Comments at 32-34; NASUCA Comments at 18-20; OTI New America Comments at 79-83; Ryan Blake Comments at 1.

[290] *See Second CMRS Report and Order*, 9 FCC Rcd at 1436-37, para. 59. We disagree with commenters arguing that, by not including IP addresses in the definition of the public switched network, the Commission would be failing to recognize the evolution of mobile network technologies that have blurred the lines between circuit switched and packet switched networks. *See* Letter from Erica Portnoy and Dr. Jeremy Gillula, Electronic Frontier Foundation to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 4 (filed Dec. 6, 2017). The Commission's original decision properly reflects that the public switched network should not be defined in a static way and should reflect that the public switched network is continuously growing and changing, but also ensures that, as it grows and evolves, the public switched network remains a single integrated network incorporating the traditional local and interexchange telephone networks and enabling users to send or receive messages to or from all other users. *See Second CMRS Report and Order*, 9 FCC Rcd at 1436-37, paras. 59, 60.

[291] *See Title II Order*, 30 FCC Rcd at 5786, para. 399.

[292] The Commission found that the updated definitions would be consistent with Congress's intent to create a symmetrical regulatory framework among mobile services that were similarly "broadly available" to the public. *See Title II Order*, 30 FCC Rcd at 5786, para. 399. While we agree that Congress intended, in adopting section 332, to regulate similar mobile services symmetrically, we do not believe that Congress intended for the Commission to regulate mobile services symmetrically simply because they are similarly "broadly available." First, being "effectively available to a substantial portion of the public" is a necessary, but not sufficient, requirement for classification as commercial mobile service. Second, as noted, Congress set as the touchstone for regulatory symmetry only those mobile services that are "functionally equivalent."

definitional analysis discussed above, as well as the public policy considerations that we have found to support our decision to classify broadband Internet access service as an information service, we find under the same authority that such developments do not persuade us to retain the modified definitions.

79. We find that mobile broadband Internet access service does not meet the regulatory definition of "interconnected service" that the Commission originally adopted in 1994 and which we readopt today, and therefore it does not meet the definition of commercial mobile service. As the Commission found in the *Wireless Broadband Internet Access Order*, "[m]obile wireless broadband Internet access service in and of itself does not provide the capability to communicate with all users of the public switched network" because it does "not use the North American Numbering Plan to access the Internet, which limits subscribers' ability to communicate to or receive communications from *all* users in the public switched network."[293] Accordingly, it is "not an 'interconnected service' as the Commission has defined the term in the context of section 332."[294]

80. We disagree with the conclusion in the *Title II Order* that, because an end user can use a separate application or service that rides on top of the broadband Internet access service for interconnected communications, mobile broadband Internet access service meets the definition of "interconnected service."[295] We find that the definition of "interconnected service" focuses on the characteristics of the offered mobile service itself. Thus, the service in question must itself provide interconnection to the public switched network using the NANP to be considered an interconnected service. Our interpretation is consistent with Commission precedent that, prior to the *Title II Order*, had classified a service based on the nature of the service itself.[296] This interpretation is also consistent with section 332(d)(1), which defines commercial mobile service as a service that itself "makes interconnected service available . . . to the public," and with section 332(d)(2), which defines "interconnected service" as "service that is interconnected with the public switched network."[297] These statutory definitions focus on the functions of the service itself rather than "whether the service allows consumers to acquire other services that bridge the gap to the telephone network."[298]

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[293] *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, para. 45 (emphasis in original).

[294] *Id.*

[295] *See Title II Order*, 30 FCC Rcd at 5786, para. 400.

[296] *See, e.g.*, *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, paras. 45-46 (recognizing that the regulatory classification of VoIP services is irrelevant to the regulatory classification of the separate mobile broadband Internet access service); *see also Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection under Section 251 of the Communications Act of 1934, as Amended, to Provide Wholesale Telecommunications Services to VoIP Providers,* Memorandum Opinion and Order, 22 FCC Rcd 3513, 3520-21, paras. 15-16 (WCB 2007) (noting the "regulatory classification of the [VoIP] service provided to the ultimate end user has no bearing on" the regulatory status of the entities transmitting [the VoIP] traffic); *see also Worldcall Interconnect, Inc. a/k/a/ Evolve Broadband, Complainant v. AT&T Mobility LLC, Defendant*, Order on Review, 32 FCC Rcd 7144, 7145-46, paras. 4-6 (2017) (finding that, where roaming service that complainant requested was use of defendant's broadband Internet access service, roaming dispute should be governed by data roaming rule rather than the CMRS roaming rule even where complainant sought to use defendant's broadband Internet access roaming service to provide complainant's subscribers with switched voice service).

[297] 47 U.S.C. § 332(d)(1), (2).

[298] Verizon Comments at 47 (emphasis omitted). Thus, we are not persuaded by arguments that "applications such as Google Voice reflect the fully interconnected nature of the mobile broadband and legacy telephone networks." OTI New America Comments at 84. Our determination reflects that the relevant service must itself be an "interconnected service," and not merely a capability to acquire interconnection. We further note that viewing broadband Internet access service as a distinct service from application layer services that may be accessed by it, even if the applications are pre-installed in the mobile device offered by the provider, ensures that similar mobile broadband Internet access services are not regulated in a disparate fashion based on what applications a particular

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81. Consistent with the Commission's analysis in the *Wireless Broadband Internet Access Order*, the fact that "consumers are now able to use a variety of Internet-enabled applications that allow them to send calls and texts to NANP end-points"[299] does not make mobile broadband Internet access service itself an interconnected service as defined by our rules.[300] The increased use and availability of mobile VoIP applications does not change the fact that mobile broadband Internet access as a core service is distinct from the service capabilities offered by applications (whether installed by a user or hardware manufacturer) that may ride on top of it.[301] When viewed as a distinct service, it is apparent that today's mobile broadband Internet access service itself does not enable users to reach NANP telephone numbers and therefore cannot be considered an interconnected service.[302]

82. Moreover, in light of the determination above that mobile broadband Internet access service should be restored to its classification as an information service, and consistent with our findings today that reinstating this classification will serve the public interest, we also find that it will serve the public interest for the Commission to exercise its statutory authority to return to its original conclusion that mobile broadband Internet access is not a commercial mobile service.[303] No one disputes that,

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provider chooses to install in their offered devices. This is consistent with the fundamental purpose under section 332 of regulatory symmetry between similar mobile services, and also avoids regulatory inconsistencies that would result when mobile devices are brought to a particular service provider by the consumer that do not include the provider's choice of pre-installed apps. While OTI New America argues that the need to obtain such apps to make an interconnected call does not make mobile broadband Internet access service different from traditional telephone service, which has always required customer premises equipment to complete an interconnected call, *see* OTI New America Reply at 56, we find the analogy inapt. With traditional CMRS, even where consumers obtain their premises equipment or mobile devices separately, the function of interconnection is provided by the purchased mobile service itself. Because the focus is solely on the relevant service provided, we also disagree that physical connections between networks, in and of themselves, establish that the relevant services are interconnected, and we further disagree that mobile broadband Internet access service should be considered an interconnected service simply because a separate interconnected voice service may be provided using the same packet-switched network layer. *See* Letter from Erica Portnoy and Dr. Jeremy Gillula, Electronic Frontier Foundation, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 3-4 (filed Dec. 6, 2017).

[299] OTI New America Comments at 84.

[300] *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, para. 45 (finding that, because "users of a mobile wireless broadband Internet access service need to rely on another service or application, such as certain [VoIP] services that rely in part on the underlying Internet access service, to make calls to, and receive calls from, 'all other users on the public switched network,'" mobile broadband Internet access service is not itself an interconnected service as the Commission has defined the term under section 332).

[301] *See*, *e.g.*, CTIA Comments at 52; Mobile Future Comments at 13; AT&T Reply at 83-84.

[302] We do not here address whether IP-based services or applications such as Wi-Fi Calling or VoLTE would meet the definition of "interconnected service" under section 332 and the Commission's rules. We disagree with OTI New America's argument that the growing availability of Wi-Fi Calling provided by mobile carriers that also offer mobile broadband Internet access service supports the classification of mobile broadband Internet access service as a commercial mobile service. *See* OTI New America Reply at 57-59. The two are distinct services and subject to separate classification determinations. Similarly, even if providers are increasingly offering voice service and mobile broadband Internet access service together, this does not support classifying and regulating the latter in the same way as the former. OTI New America Reply at 54, 60-61. Providers have long offered multiple services of mixed classification, subject to the rule that they are regulated as common carriers to the extent they offer services that are subject to Title II regulation. *See, e.g.*, 47 U.S.C. § 153(51) (providing that a telecommunications carrier "shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications services").

[303] We note that commenters who support the *Title II Order's* revised definition of "public switched network" do not dispute that Congress expressly delegated authority to the Commission to define the key terms, i.e., "public switched network" and "interconnected service." *See, e.g.*, AARP Comments at 32-34; NASUCA Comments at 18-20; OTI New America Comments at 79-83.

consistent with the Commission's previous findings, if mobile broadband Internet access service were a commercial mobile service for purposes of section 332 and were also classified as an information service, such a regulatory framework could lead to contradictory and absurd results.[304] Among these problems, as the Commission explained in 2007, is that a contrary reading of the Act would result in an internal contradiction within the statutory framework, because section 332 would require that the service provider be treated as a common carrier insofar as it provides mobile wireless broadband Internet access service, while section 3 clearly would prohibit the application of common carrier regulation of such a service provider's provision of that service.[305] Indeed, the *Title II Order*, like the 2007 *Wireless Broadband Internet Access Order*, recognized and sought to avoid the significant problems in construing section 332 in a manner that set up this "statutory contradiction" with the scope of Title II.[306] Construing the CMRS definition to exclude mobile broadband Internet access service as an information service similarly avoids this contradiction, furthers the Act's overall intent to allow information services to develop free from common carrier regulations, and is consistent with the public policy analysis in connection with our determination to reclassify mobile broadband Internet access as an information service.[307] Further, it avoids the absurd result of singling out mobile providers of broadband Internet access service for such common carrier regulation while freeing fixed broadband Internet access services from such regulation, notwithstanding that, as discussed elsewhere in this Order, there is generally greater competition in the provision of mobile broadband Internet access service than in fixed broadband Internet access service.

83. In addition to finding that mobile broadband Internet access is not a commercial mobile service, we also adopt our proposal to reconsider the Commission's analysis regarding functional equivalence in the *Title II Order*.[308] We find that the test for functional equivalence adopted in the *Second CMRS Report and Order* reflects the best interpretation of section 332. Under this test, a variety of factors will be evaluated to make a determination whether the mobile service in question is the functional equivalent of a commercial mobile radio service, including: consumer demand for the service to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service would prompt customers to change from one service to the other; and market research information identifying the targeted market for the service under review.[309] In contrast, as noted above, the *Title II Order* based its finding of functional equivalence on the notion that "like commercial mobile service,

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[304] *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5919-21, paras. 48-56.

[305] *See id.*

[306] *Title II Order*, 30 FCC Rcd at 5788, para. 403; *USTelecom*, 825 F.3d at 724.

[307] *See Stevens Report*, 13 FCC Rcd at 11511, para. 21; *see also* 47 U.S.C. § 231(e)(4) (excluding "telecommunications services" from the definition of "Internet access service"). We note that wireless services similar to mobile broadband Internet access service were not available in the market place in 1993 when Congress adopted section 332 or, in 1996, when Congress adopted the section 3 definition of "telecommunication carrier."

[308] For the same reasons discussed below with respect to our authority to revisit the classification of broadband Internet access service, we disagree with arguments regarding limits on the Commission's ability to revisit the *Title II Order*'s findings regarding functional equivalence. *See* NTCH/Flat Wireless Comments at 16 ("Just as courts are bound by the earlier decisions of the same court, the Commission cannot discard its prior decisions just because it disagrees with them."). In addition, we note that the *Title II Order*, in reaching the conclusion that mobile broadband Internet access was a commercial mobile service, relied in part on the need to avoid a statutory contradiction with its determination that the service was a telecommunications service. *See Title II Order*, 30 FCC Rcd at 5788, para. 403. Given our decision to restore the original classification of mobile broadband Internet access service as an information service, this change additionally warrants revisiting our conclusions with regard to the classification of mobile broadband Internet access service under section 332.

[309] *See Second CMRS Report and Order*, 9 FCC Rcd at 1447-48, para. 80; 47 CFR § 20.9(14)(ii)(B). We again note that we are recodifying these factors under section 20.3 of the Commission's rules, but not modifying their substance. *See CMRS Presumption Order,* FCC 17-167.

[mobile broadband Internet access] is a widely available, for profit mobile service that offers mobile subscribers the capability to send and receive communications on their mobile device to and from the public."[310] Commenters who support the classification of mobile broadband Internet access service as a commercial mobile service similarly contend that mobile broadband Internet access service shares no similarities with other private mobile services such as taxi dispatch services and that, in contrast, "there is no networked service more open, interconnected, and universally offered than mobile broadband Internet access service."[311]

84. We believe the test of functional equivalence adopted in the *Second CMRS Report and Order* hews much more faithfully to the intent of Congress than the approach applied in the *Title II Order* or the analyses in the record focusing on the extent of service availability.[312] If Congress meant for widespread public access to a widely used service to be the determining factor for what is "functionally equivalent" to a commercial mobile service, it would not have included being "interconnected with the public switched network" in the statutory definition of the service.[313] Although the Commission has discretion to determine whether services are functionally equivalent, we find that the *Title II Order*'s reliance on the public's "ubiquitous access" to mobile broadband Internet access service alone was insufficient to establish functional equivalency. In contrast, the test established in the *Second CMRS Report and Order* provides a thorough consideration of factors that are indicative of whether a service is closely substitutable in the eyes of consumers for a commercial mobile service.[314]

85. Applying the test adopted by the Commission in the *Second CMRS Report and Order,* we find that mobile broadband Internet access service today is not the functional equivalent of commercial mobile service as defined by the Commission.[315] We note again that, under this test, services not meeting the definition of commercial mobile service are presumed to be not functionally equivalent, a presumption particularly intuitive here in light of the functional differences between traditional commercial mobile services like mobile voice and today's mobile broadband services. The evidence on demand substitutability only reinforces this presumption. First, mobile broadband Internet access service and traditional mobile voice services have different service characteristics and intended uses. Consumers purchase mobile broadband Internet access service to access the Internet, on-line video, games, search

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[310] *Title II Order*, 30 FCC Rcd at 5789, para. 404. The order added that "both mobile broadband Internet access service and commercial mobile service provide their users with a service that enables ubiquitous access to the vast majority of the public." *Id.* at 5790, para. 407.

[311] OTI New America Comments at 76-77; *see also id.* at 95-96 & n.269 (pointing out differences between mobile broadband Internet access service and private mobile services regulated under Part 90 of the Commission's rules). We note that the statute directs us to determine whether mobile broadband Internet access is functionally equivalent to a commercial mobile service, not whether it is functionally dissimilar from certain systems classified as private mobile.

[312] *See Second CMRS Report and Order*, 9 FCC Rcd at 1447, paras. 78, 79.

[313] 47 U.S.C. §§ 332(d)(1), 332(d)(2). Indeed, the relevant House Report, in describing "private carriers" that under the current law were offering service "[f]unctionally . . . indistinguishable" from carriers classified as common carriers, highlighted that these private carriers were offering services interconnected with the public switched network. *See* H.R. Rep. 103-111, at 259-60 (1993). *See also Second CMRS Report and Order*, 9 FCC Rcd at 1434, para. 54 (finding that "[t]he purpose underlying the congressional approach . . . is to ensure that a mobile service that gives its customers the capability to communicate to or receive communication from other users of the public switched network should be treated as a common carriage offering (if the other elements of the definition of commercial mobile radio service are also present, or if the service can be deemed the functional equivalent of CMRS)").

[314] *Second CMRS Report and Order*, 9 FCC Rcd at 1447-48, para. 80.

[315] *See* 47 U.S.C. § 332(d)(3). We make a conforming revision to the definition of "commercial mobile radio service" in section 20.3 of the Commission's rules to reflect our determination that mobile broadband Internet access service is not the functional equivalent of commercial mobile service.

engines, websites, and various other applications, while they purchase mobile voice service solely to make calls to other users using NANP numbers. Pricing and marketing information similarly support the conclusion that today mobile broadband Internet access service and traditional mobile voice services are not "closely substitutable." Such evidence suggests, for example, that mobile service providers target different types of customer groups when advertising voice, as opposed to mobile broadband Internet access service.[316] Moreover, at this time, voice-only mobile services tend to be much less expensive than mobile broadband Internet access services, and they appear to be targeted to consumers who seek low-cost mobile service.[317] Currently, for example, unlimited voice and text only plans may range from $15 to $25 per month.[318] In contrast, unlimited mobile broadband Internet plans may range from $60 to $90 per month for a single line.[319] Nothing in the record suggests that changing the price for one service by a small but significant percentage would prompt a significant percentage of customers to move to the other service.[320] Accordingly, under the functional equivalence standard adopted in the *CMRS Second Report and Order*, we find that mobile broadband Internet access today is not the functional equivalent of commercial mobile service. The two services have different service characteristics and intended uses and are not closely substitutable for each other, as evidenced by the fact that changes in price for one service generally will not prompt significant percentages of customers to change from one service to the other.

C. Public Policy Supports Classifying Broadband Internet Access Service As An Information Service

86. While our legal analysis concluding that broadband Internet access service is best classified as an information service under the Act is sufficient grounds alone on which to base our classification decision, the public policy arguments advanced in the record and economic analysis reinforce that conclusion. We find that reinstating the information service classification for broadband Internet access service is more likely to encourage broadband investment and innovation, furthering our goal of making broadband available to all Americans and benefitting the entire Internet ecosystem. For almost 20 years, there was a bipartisan consensus that broadband should remain under Title I,[321] and ISPs

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[316] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Nineteenth Report, 31 FCC Rcd 10534, 10615, para. 112 (WTB 2016) (describing industry efforts to target budget-minded consumers relying on non-smartphones).

[317] *See, e.g.*, Cricket Wireless, Cell Phone Plans, https://www.cricketwireless.com/cell-phone-plans (promoting availability of "Talk & Text-No Data Access" plan, "Not a smartphone user? Talk & Text keeps it simple with unlimited calls and texts - no data access."); Republic Wireless, Plans, https://republicwireless.com/cell-phone-plans (offering 0 GB plan for "Talk & Texters").

[318] *See, e.g.*, Cricket Wireless, Cell Phone Plans, https://www.cricketwireless.com/cell-phone-plans; Republic Wireless, Plans, https://republicwireless.com/cell-phone-plans/.

[319] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 17-69, Twentieth Report, 32 FCC Rcd 8968, 9007, Chart III.A.1 (2017).

[320] AT&T Comments at 92; CTIA Comments at 53; Verizon Comments at 49-50.

[321] *See, e.g.*, National Multicultural Organizations Comments at 8 (citing a 1996 speech by Chairman Kennard, William E. Kennard, Chairman, FCC, *Remarks Before the Federal Communications Bar Northern California Chapter* (July 20, 1999), https://transition.fcc.gov/Speeches/Kennard/spwek924.html); *Internet Policy Statement*, 20 FCC Rcd at 14986; *Open Internet Order*, 25 FCC Rcd at 17931, para. 43; USTelecom Comments at 2; Cisco Comments at 5; Mobile Future Nov. 2, 2017 *Ex Parte Letter*, Attach. *Net Neutrality and the Role of Antitrust: Hearing Before Subcomm. on Regulatory Reform, Commercial, and Antitrust Law, H. Comm. on the Judiciary,* (2017) (testimony of The Hon. Robert M. McDowell), at 7-9 (McDowell Testimony).

cumulatively invested $1.5 trillion in broadband networks between 1996 and 2015.[322] During that period of intense investment, broadband deployment and adoption increased dramatically, as the combined number of fixed and mobile Internet connections increased from 50.2 million to 355.2 million from 2005 to 2015,[323] and even as early as 2011, a substantial majority of Americans had access to broadband at home.[324] As of 2016, roughly 91 percent of homes had access to networks offering 25 Mbps,[325] and there were 395.9 million wireless connections, twenty percent more than the U.S. population.[326] Mobile data speeds have also dramatically increased, with speeds increasing 40-fold from the 3G speeds of 2007.[327] Cable broadband speeds increased 3,200 percent between 2005 and 2015,[328] while prices per Mbps fell by more than 87 percent between 1996 and 2012.[329]

87. Based on the record in this proceeding, we conclude that economic theory, empirical studies, and observational evidence support reclassification of broadband Internet access service as an information service rather than the application of public-utility style regulation on ISPs. We find the Title II classification likely has resulted, and will result, in considerable social cost, in terms of foregone investment and innovation. At the same time, classification of broadband Internet access service under Title II has had no discernable incremental benefit relative to Title I classification.[330] The regulations promulgated under the Title II regime appear to have been a solution in search of a problem. Close examination of the examples of harm cited by proponents of Title II to justify heavy-handed regulation reveal that they are sparse and often exaggerated. Moreover, economic incentives, including competitive pressures, support Internet openness. We find that the gatekeeper theory, the bedrock of the *Title II*

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[322] USTelecom Comments at 3 (citing USTelecom, *Broadband Investment*, http://www.ustelecom.org/broadband-industry/broadband-industry-stats/investment ("Broadband provider network capital expenditures in 2015 were $76 billion . . . [w]ith investments totaling around $1.5 trillion since 1996. . . .")). Commenters who claim recent growth in online video streaming services is evidence of the need for Title II regulation ignore the fact that the growth of online video streaming services was largely made possible by the network investments made under Title I and as such demonstrates instead the success of the longstanding light-touch framework under Title I. *Compare* Free Press Comments at 87, *with* NCTA Reply at 19 ("Free Press fails to recognize the massive network investments and upgrades undertaken by BIAS providers *before* the *Title II Order*—when the Title I framework remained in place—were primarily responsible for the explosion of streaming video services.") *and* AT&T Oct. 31, 2017 *Ex Parte* Letter, Israel & Keating Decl. at 46 (showing roughly even rates of growth for Netflix and Hulu year-to-year from 2012-2016).

[323] Comcast Comments, Appx. A (citing FCC, Internet Access Services Report: Status as of December 31, 2015, at 2; FCC, Internet Access Services Report: Status as of December 31, 2010, at 3; FCC, High-Speed Services for Internet Access: Status as of December 31, 2005, at 1 (all reporting connections over 200 kbps in at least one direction)).

[324] Data indicate that 95.7 percent of Americans live in a census block that at least one ISP reports supplying Internet access at speeds of at least 25 Mbps down and 3 Mbps up. *See* FCC Form 477 Subscription Data, December 2016; U.S. Census Bureau, 2010 Census Data, Summary File 1, https://www.census.gov/2010census/data/; Cisco Comments at 3, n.9 (citing Kathryn Zickuhr & Aaron Smith, *Home Broadband 2013*, Pew Research Center (Aug. 26, 2013), http://www.pewinternet.org/2013/08/26/home-broadband-2013/#fn-40-5 ("[A]bout 98% of U.S. households live in areas where they have access to broadband Internet connections as of July 2011.")).

[325] USTelecom Comments at 5-6.

[326] CTIA Comments at 3.

[327] Verizon Comments, Exh. A at 24 (citing CTIA, *Wireless Snapshot 2017*, available at https://www.ctia.org/docs/default-source/default-document-library/ctia-wireless-snapshot.pdf).

[328] NCTA Comments at 29.

[329] NCTA Comments at 30 (citing Comments of Comcast Corp., GN Docket No. 12-228, at 12 (filed Sept. 20, 2012)).

[330] For a summary comparison of benefits and costs, *see infra* Part V.

Order's overall argument justifying its approach, is a poor fit for the broadband Internet access service market. Further, even if there may be potential harms, we find that pre-existing legal remedies, particularly antitrust and consumer protection laws, sufficiently address such harms so that they are outweighed by the well-recognized disadvantages of public utility regulation. As such, we find that public policy considerations support our legal finding that broadband Internet access service is an information service under the Act.

1. Title II Regulation Imposes Substantial Costs on the Internet Ecosystem

88. The Commission has long recognized that regulatory burdens and uncertainty, such as those inherent in Title II, can deter investment by regulated entities and, until the *Title II Order*, its regulatory framework for cable, wireline, and wireless broadband Internet access services reflected that reality.[331] This concern is well-documented in the economics literature on regulatory theory, and the record also supports the theory that the regulation imposed by Title II will negatively impact investment. The balance of the evidence in the record suggests that Title II classification has reduced ISP investment in broadband networks, as well as hampered innovation, because of regulatory uncertainty. The record also demonstrates that small ISPs, many of which serve rural consumers, have been particularly harmed by Title II. And there is no convincing evidence of increased investment in the edge that would compensate for the reduction in network investment.

89. *Investment by ISPs.* As the Commission has noted in the past, increased broadband deployment and subscribership require investment, and the regulatory climate affects investment.[332] The mechanisms by which public utility regulation can depress investment by the regulated entity are well-known in the regulatory economics literature. The owners of network infrastructure make long-term, irreversible investments. In theory, public utility regulation is intended to curb monopoly pricing just enough that the firm earns a rate of return on its investments equivalent to what it would earn in a competitive market. In practice, public utility regulation can depress profits below the competitive rate of return for a variety of reasons. This reduction in the expected return reduces the incentive to invest.[333] Importantly, the risk that regulation might push returns below the competitive level also creates a disincentive for investment.[334]

90. We first look to broadband investment in the aggregate and find that it has decreased since the adoption of the *Title II Order*. ISP capital investment increased each year from the end of the

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[331] *See Cable Modem Order*, 17 FCC Rcd at 4802, para. 5; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14865, para. 19; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13285, paras. 7-8; *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5902, para. 2. Congress has similarly recognized the burdens associated with regulation. For example, the 1996 Act states its purpose is to "reduce regulation," and directs the Commission to regularly review regulations and repeal those it deems unnecessary or harmful to investment, competition, and the public interest. Preamble to Telecommunications Act of 1996, Pub. L. No 104-104, 110 Stat. 56 (1996); 47 U.S.C. §§ 161, 257.

[332] *See Cable Modem Order*, 17 FCC Rcd at 4802, para. 5 ("Second, we believe 'broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market.' In this regard, we seek to remove regulatory uncertainty that in itself may discourage investment and innovation. And we consider how best to limit unnecessary and unduly burdensome regulatory costs."), quoting *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Universal Service Obligations of Broadband Providers*, CC Docket No. 02-33, Notice of Proposed Rulemaking 17 FCC Rcd 3019, 3022 para. 5 (2002).

[333] *See* Graeme Guthrie, *Regulating Infrastructure: The Impact on Risk and Investment*, 44 J. Econ. Literature 925, 950-51 (2006) (Guthrie Article). This article provides a survey of the economic literature on the ways regulation can affect investment.

[334] *Id.* at 954.

recession in 2009 until 2014, when it peaked.[335] In 2015, capital investment by broadband providers appears to have declined for the first time since the end of the recession in 2009.[336] And investment levels fell again in 2016—down more than 3 percent from 2014 levels.[337] Although declines in broadband capital investments have occurred in the past with changes in the business cycle, the most recent decline is particularly curious given that the economy has not experienced a recession in recent years but rather has been growing. While observing trends in the data by itself cannot establish the cause of directional movements, the stark trend reversal that has developed in recent years suggests that changes to the regulatory environment created by the *Title II Order* have stifled investment. In addition to data trends, the record contains a variety of other studies, using different methodologies which seek to determine how imposition of public-utility style regulation might affect ISPs' investments.

91. Comparisons of ISP investment before and after the *Title II Order* suggest that reclassification has discouraged investment. Performing such a comparison, economist Hal Singer concluded that ISP investment by major ISPs fell by 5.6 percent between 2014 and 2016.[338] Singer attempted to account for a few significant factors unrelated to Title II that might affect investment, by subtracting some investments that are clearly not affected by the regulatory change (such as the accounting treatment of Sprint's telephone handsets, AT&T's investments in Mexico, and DirecTV investments following its acquisition by AT&T in the middle of this period).[339] In contrast, Free Press presents statistics[340] that it claims demonstrate that broadband deployment and ISP investment "accelerated"[341] to "historic levels"[342] after the Commission approved the *Title II Order*. But Free Press fails to account for factors such as foreign investment and the appropriate treatment of handsets as capital expenditures, as Singer did.

92. A comparative assessment that adjusted the Free Press and Singer numbers so that they covered the same ISPs, spanned the same time period, and subtracted investments unaffected by the regulatory change, found that both sets of numbers demonstrate that ISP investment fell by about 3 percent in 2015 and by 2 percent in 2016.[343] A Free State Foundation calculation using broadband capital expenditure data for 16 of the largest ISPs reached a result similar to Singer's, but this analysis simply

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[335] *See* Patrick Brogan, *Broadband Investment Continues Trend Down in 2016*, USTelecom Research Brief (Oct. 31, 2017), https://www.ustelecom.org/sites/default/files/documents/Broadband%20Investment%20Trending%20Down%20in%202016.pdf.

[336] *Id.*

[337] *Id.*; *see also* Anna-Maria Kovacs, *The Effect of Title II Classification on Wireless Investment* (July 2017), http://cbpp.georgetown.edu/sites/cbpp.georgetown.edu/files/Kovacs%20-%20Title%20II%20and%20wireless%20investment.pdf (finding that "in the last three years wireless capital investment (capex) has slowed, with a precipitous decline in 2016" that "coincided with and was likely caused at least in part by investors' and the industry's reaction to" the *Title II Order*'s "common-carrier regulation [of] mobile broadband").

[338] *See* Hal J. Singer, *2016 Broadband Capex Survey: Tracking Investment in the Title II Era* (Mar. 1, 2017), https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era/.

[339] However, Singer's calculations do not control for some factors that influence investment, such as the "lumpiness" of capital investment and technological change. *See*, *e.g.*, AARP Comments at 51-54.

[340] Free Press Comments at 86-144.

[341] *Id*. at 86.

[342] *Id*.

[343] Doug Brake, ITIF, *Broadband Myth Series, Part 1: What Financial Data Shows About the Impact of Title II on Investment* (June 2, 2017), https://itif.org/publications/2017/06/02/broadband-myth-series-part-1-what-financial-data-shows-about-impact-title-ii.

compared actual ISP investment to a trend extrapolated from pre-2015 data.[344] These types of comparisons can only be regarded as suggestive, since they fail to control for other factors that may affect investment (such as technological change, the overall state of the economy, and the fact that large capital investments often occur in discrete chunks rather than being spaced evenly over time), and companies may take several years to adjust their investment plans. Nonetheless, these comparisons are consistent with other evidence in the record that indicates that Title II adversely affected broadband investment.[345]

93. The record also contains analyses attempting to assess the predicted causal effects of Title II regulation on ISP investment and/or output.[346] Some of these studies are "natural experiments" that seek to compare outcomes occurring after policy changes to a relevant counterfactual that shows what outcomes would have occurred in the absence of the policy change. No single study is dispositive, but methodologies designed to estimate impacts relative to a counterfactual tend to provide more convincing evidence of causal impacts of Title II classification. Having reviewed the record of these studies, the balance of the evidence indicates that Title II discourages investment by ISPs—a finding consistent with economic theory.[347]

94. Prior FCC regulatory decisions provide a natural experiment allowing this question to be studied. Scholars employing the natural experiment approach[348] found that prior to 2003, subscribership to cable modem service (not regulated under Title II) grew at a far faster rate than subscribership to DSL Internet access service (the underlying 'last mile' facilities and transmission which were regulated under Title II).[349] After 2003, when the Commission removed line-sharing rules on DSL, DSL Internet access service subscribership experienced a statistically significant upward shift relative to cable modem service.[350] A second statistically significant upward shift in DSL Internet access service subscribership relative to cable modem service occurred after the Commission classified DSL Internet access service as

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[344] *See* Free State Foundation, *Broadband Investment Slowed by $5.6 Billion Since Open Internet Order*, (May 5, 2017), http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html.

[345] A separate comparison of the United States' ISP investment with ISP investment in Europe also suggests that ISP investment might decline further if the U.S., under the *Title II Order*, moves toward a regulatory system more like Europe's. A USTelecom research brief finds that European investment per capita is about 50 percent lower than broadband investment in the U.S. per capita. *See* Patrick Brogan, *Utility Regulation and Broadband Network Investment: The EU and US Divide*, USTelecom Research Brief (Apr. 25, 2017) (Brogan Apr. 25, 2017 Article). As some commenters point out, this study compares the U.S. with the much more regulatory European system, which includes mandatory unbundling at regulated rates. Thus, it presents a picture of how investment could change if the U.S. moves toward the European system under Title II, not an assessment of the direct results of the *Title II Order*. *See*, *e.g.*, AARP Comments at 60; USTelecom at 1. The brief does not control for other factors that could explain investment. Brogan Apr. 25, 2017 Article at 4; AARP Comments at 59.

[346] An additional type of evidence is the effect of the *Title II Order* on stock prices. Robert W. Crandall, *The FCC's Net Neutrality Decision and Stock Prices*, 50 Rev. Indus. Org. 555, 560-573 (Feb. 11, 2017). According to that study, in the short term, the decision appears to have had little direct effect on stock prices, except for a few cable ISPs. That may reflect the forward-looking, predictive capabilities of market players.

[347] *See* Guthrie Article at 950-51. The record does not provide sufficient evidence to quantify the size of the effect of Title II on investment.

[348] A natural experiment research approach seeks to use a plausibly exogenous source of policy variation between groups (a treated and control) to estimate the effect of the policy. This seeks to identify a counterfactual situation where the policy was not in effect against which the treated group can be compared. *See* Bruce D. Meyer, *Natural and Quasi-Experiments in Economics*, 13 J. Bus. & Econ. Stat. 151 (1995).

[349] Thomas W. Hazlett & Joshua D. Wright, *The Effect of Regulation on Broadband Markets: Evaluating the Empirical Evidence in the FCC's 2015 'Open Internet' Order*, 50 Rev. Indus. Org. 487, 499 (2017) (Hazlett & Wright).

[350] *Id*.

an information service in 2005.[351] This evidence suggests that Title II discourages not just ISP investment, but also deployment and subscribership, which ultimately create benefits for consumers. While some commenters contend that deployment and subscribership continued to increase after the *Title II Order*, such that nothing is amiss,[352] this casual observation does not compare observed levels of subscribership and deployment to a relevant counterfactual that controls for other factors.

95. An assessment of how ISP investment reacted to news of impending Title II regulation suggests that the threat of Title II regulation discouraged ISP investment.[353] Such statistical analysis allows one to compare the actual level of investment with a counterfactual estimate of what investment would have been in the absence of the change in risk. This study found that Chairman Genachowski's 2010 announcement of a framework for reclassifying broadband under Title II—a credible increase in the risk of reclassification that surprised financial markets—was associated with a $30 billion-$40 billion annual decline in investment in the U.S. Bureau of Economic Analysis' "broadcasting and telecommunications" category between 2011 and 2015.[354] The study attributes the decline to the threat of Title II regulation, rather than net neutrality *per se*, because no similar decline occurred when the FCC adopted the four principles to promote an open Internet in 2005.[355] Because the study's measure of investment data covers the entire broadcasting and telecommunications industries,[356] the change in investment measured in this study might be larger than the change in broadband investment associated with the threat of Title II regulation. Accordingly, the findings may be a more reliable indicator of the direction of the change in investment than the absolute size of the change. At the very least, the study suggests that news of impending Title II regulation is associated with a reduction in ISP investment over a multi-year period.

96. Some commenters have argued that this study does not identify the effect of Title II on ISP investment, because the "last mile" facilities and transmission underlying DSL Internet access service (essentially incumbent LEC broadband supply) were under Title II before 2005, during the study's pre-treatment period.[357] However, to the extent that a fraction of the industry was subject to Title II (and at the time the bulk of broadband subscribers used cable modem services that were not regulated under Title II), this would imply Ford's negative result for investment was understated.[358]

97. The study is also disputed by the Internet Association, which submitted an economic

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[351] *Id*. at 499-500

[352] Free Press Comments at 91-125.

[353] George S. Ford, *Net Neutrality, Reclassification and Investment: A Counterfactual Analysis, Phoenix Center Perspectives* (Apr. 25, 2017), http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf.

[354] *Id*. at 2.

[355] *Id*. at 7-8.

[356] AARP Comments at 105-06.

[357] AARP comments at 56-57; Joan Nix, Bruce McNevin, & David Gabel Comments at 7 (Nix et al. Comments) ("[Ford's paper] does not address the fact that between the years of 1980 and 2005, wireline carriers provided Internet access as a Title II service."). One commenter points out the pre-treatment period was one in which, for a period, DSL was subject to particularly heavy-handed Title II regulation. Nix et al. Comments at 7. Again, this means Ford would have underestimated the impacts of a move from pure absence of Title II regulation and its threat. Finally, that same commenter asks, "why would ISP investment decline in 2010-2015, when Title II regulation was considered, but not implemented, relative to the non-treatment years [1980-2009] when Title II regulation was in-place for wireline carriers, and considered but not adopted for cable modem service?" *Id.* at 7-8. However, they provide no basis for the question's premise.

[358] Between 1999 and 2002, there were roughly twice as many cable modem subscribers as DSL subscribers. DSL Internet access service started achieving a much larger market share after the FCC removed line-sharing regulations from DSL in 2003. Hazlett & Wright at 498-99.

study arguing that the threat and eventual imposition of Title II status on broadband Internet service providers in 2010 and 2015 did not have a measurable impact on telecommunications investment in the U.S.[359] While we appreciate the alternative method and data sources introduced by that study, several elements lead us to discount its findings. The estimation of the impact of events in both 2010 and 2015 relies partially on forecast rather than actual data, which likely lessens the possibility of finding an effect of Title II on investment.[360] In addition, when examining cable and telecommunications infrastructure investment in the U.S., the study relies on a regression discontinuity over time model, thereby eliminating the use of a separate control group to identify the effect of policy changes. We believe use of such a model in these circumstances is unlikely to yield reliable results.[361]

98. In light of the foregoing record evidence, we conclude that reclassification of broadband Internet access service from Title II to Title I is likely to increase ISP investment and output. The studies in the record that control the most carefully for other factors that may affect investment (the Ford study and the Hazlett & Wright study) support this conclusion.[362] Consequently, we disagree with commenters who assert that Title II has increased or had no effect on ISP investment, given the failure of other studies to account for complexity of corporate decision-making and the macroeconomic effects that can play a role in investment cycles.[363] We also disagree with commenters who assert that it may be too soon to meaningfully assess the economic effects that Title II has had on broadband infrastructure investment.[364]

99. *Regulatory Uncertainty*. The evidence that Title II has depressed broadband investment is bolstered by other record evidence showing that Title II stifled network innovation. Among the unseen social costs of regulation are those broadband innovations and developments that never see the light of day. ISP investment does not simply take the form of greater deployment, but can also be directed toward new and more advanced services for consumers. Research and development is an inherently risky part of any business, and the Commission's actions should not introduce greater uncertainty and risk into the process without a clear need to do so. Numerous commenters have stated that the uncertainty regarding what is allowed and what is not allowed under the new Title II broadband regime has caused them to shelve projects that were in development, pursue fewer innovative business models and arrangements, or delay rolling out new features or services. Even large ISPs with significant resources have not been immune to the dampening effect that uncertainty can have on a firm's incentive to innovate. Charter, for instance, has asserted that it has "put on hold a project to build out its out-of-home Wi-Fi network, due in part to concerns about whether future interpretations of Title II would allow Charter to continue to offer

[359] Internet Association Comments at 12.

[360] The Internet Association study claims that its test of the 2010 effect did not use forecast data. However, comparing the reported number of observations in Tables B1 and B2 of the study clearly indicates that the same datasets were used to estimate 2010 and 2015 effects. Furthermore, we note that the Phoenix Center attempted to replicate the results of Table B1 and obtained strikingly different results when excluding the forecast data. Unfortunately, the Phoenix Center chose to only estimate Hooton's baseline model, which did not control for obviously confounding factors such as the business cycle, and therefore we place limited weight on the Phoenix Center's revisions. *See* George S. Ford, *A Further Review of the Internet Association's Empirical Study on Network Neutrality and Investment*, Phoenix Center Perspectives 17-10 (Aug. 14, 2017).

[361] *See* Catherine Hausman & David S. Rapson, *Regression Discontinuity in Time: Considerations for Empirical Applications*, NBER Working Paper No. 23602 (July 2017), http://www.nber.org/papers/w23602.

[362] Ford controls for macroeconomic factors that influence the overall economy using a two-way fixed-effects model. Hazlett & Wright's analysis of the effects of Title II on DSL subscribership cites regression analysis that controls for factors influencing the overall economy by including Canadian DSL subscribership as an explanatory variable.

[363] MFRConsulting Reply at 2.

[364] *Id*. at 4; AARP Comments at 59.

its Wi-Fi network as a benefit to its existing subscribers."[365] Cox has also stated that it has approached the "development and launch of new products and service features with greater caution" due to the uncertainty created by the Title II classification.[366] And while new service offerings can take a while to develop and launch, Comcast cites "Title II overhang" as a burden that delayed the launch of its IP-based transmission of its cable service, due to a year-long investigation.[367]

100. Utility-style regulation is particularly inapt for a dynamic industry built on technological development and disruption. It is well known that extensive regulation distorts production as well as consumption choices.[368] Regulated entities are inherently restricted in the activities in which they may engage, and the products that they may offer. Asking permission to engage in new activities or offer new products or services quickly becomes a major preoccupation of the utility.[369] Within the communications industry, it is apparent that the most regulated sectors, such as basic telephone service, have experienced the least innovation, whereas those sectors that have been traditionally free to innovate, such as Internet service, have greatly evolved.[370] In the communications industry, incumbents have often used Commission regulation under the direction of the "public interest" to thwart innovation and competitive entry into the sector and protect existing market structures.[371] Given the unknown needs of the networks of the future, it is our determination that the utility-style regulations potentially imposed by Title II run contrary to the public interest.

101. The record confirms that concern about "regulatory creep"—whereby a regulator slowly increases its reach and the scope of its regulations—has exacerbated the regulatory uncertainty created by the *Title II Order*. Even at the time of adoption, the Commission itself did not seem to know how the

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[365] Charter Comments at 11 (explaining that future interpretations of Title II could risk investments it has already made, or might soon make, demonstrating Title II's effect of not only inhibiting capital investment, but also deterring market entry, resulting in depressed competition).

[366] Cox Comments at 2-3, 16 (explaining that its parent company has had to divert resources to other areas of the business that are not facing such investment risk); *see also* Comcast Comments at 37 (characterizing the regulatory uncertainty as a "Sword of Damocles hanging over every service-related decision," with the effect that new services are either not launched at all, or are significantly delayed).

[367] Comcast Comments at 37.

[368] *See*, *e.g.*, Guthrie Article at 928-29; Technology Policy Institute (Leonard & Wallsten) Comments at 6 (discussing the problems other industries have experienced with heavy utility-regulation: the Interstate Commerce Commission's initially regulated railroads, and then trucking, once trucking began to compete with rail, negatively affecting both industries, as trucking "became a legal cartel with no incentive to innovate," and "regulations prevented railroad companies from adapting, driving several into bankruptcy," all to the ultimate detriment of the public).

[369] This is apparent upon a casual observation of heavily-regulated utilities, such as the U.S. power, water, and mass transit systems. *See* Downes Comments at 13. These are industries where competition has been effectively deemed impossible, run by quasi-public monopolies that lack incentives to invest, innovate, or even properly maintain their facilities. *Id*. at 13 (citing heavily-regulated power utilities as an example of the effects of over-regulation. As power utilities lack financial incentive to find innovative solutions, many see "efficient solar power not as a potentially better and cheaper solution but rather as an 'existential threat', the beginning, according to the trade group Edison Electric Institute, of 'a death spiral' for its members.").

[370] *Id*. at 15 (highlighting the discrepancy between the unregulated computing world and the world of basic telephone service; as computing "exploded," basic telephone "limped along," with basic innovations such as call forwarding and caller ID requiring both a partial deregulation following the 1982 MFJ, and decades of federal and state approval).

[371] Roslyn Layton & Bronwyn Howell, *How Title II Harms Consumers and Innovators*, AEI.org, at 9-10 (July. 14, 2017) (describing radio spectrum awarded on basis of public interest, prior to advent of auctions, and broadcasters using the Commission to fight the development of cable television).

Title II Order would be interpreted.[372] As then-Chairman Wheeler stated in February 2015, "we don't really know. No blocking, no throttling, no fast lanes. Those can be bright-line rules because we know about those issues. But we don't know where things go next."[373] With future regulations open to such uncertainties, Title II regulation adds a risk premium on each investment decision, which reduces the expected profitability of potential investments and deters investment.[374] For example, the *Title II Order* did not forbear from *ex post* enforcement actions related to subscriber charges, raising concerns that *ex post* price regulation was very much a possibility.[375] Further, providers have asserted that although the Commission forbore from the full weight of Title II in the *Title II Order*, they were less willing to invest due to concerns that the Commission could reverse course in the future and impose a variety of costly regulations on the broadband industry—such as rate regulation and unbundling/open access requirements—placing any present investments in broadband infrastructure at risk.[376] These concerns were compounded by the fact that while the *Title II Order* itself announced forbearance from *ex ante* price regulation, at the same time it imposed price regulation with its ban on paid prioritization arrangements, which mandated that ISPs charge edge providers a zero price. These threats to the ISP business model have been felt throughout financial markets. As Craig Moffett of MoffettNathanson explained, "[i]t would be naïve to suggest that the implication of Title II, particularly when viewed in the context of the FCC's repeated findings that the broadband market is non-competitive, doesn't introduce a real risk of price regulation."[377] These risks are not merely theoretical: As CenturyLink contends, financial analysts lowered industry stock ratings due in part to the major risks Title II posed to the industry, which resulted in lower stock prices and lost market capitalization.[378]

102. For these reasons, "any rational ISP will think twice before investing in innovative business plans that might someday be found to violate the Commission's undisclosed policy preferences and thus give rise to a cease-and-desist order and perhaps massive forfeiture penalties."[379] We conclude

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[372] Comcast Dippon Paper at 21-22.

[373] Statement of Tom Wheeler, Former Chairman, FCC, Press Conference (Feb. 26, 2015), https://www.c-span.org/video/?c4534447/wheeler-general-conduct-standard.

[374] Verizon Comments, Exh. A, at 9-10; AT&T Econ. Decl. at 53; ACA Comments at 26-27 ("Upgrades require very large capital investments that must be spread over a long period of time . . . . Even if the current Commission were unlikely to rate regulate broadband Internet access, uncertainty about what the next Commission might do in that regard" means that the investment certainty period is very short.").

[375] AT&T Econ. Decl. at 44-45; NCTA Comments, Appx. A, Dr. Bruce Owen Paper at 11-12 (the *Title II Order* left in place the prohibition on "unreasonable" and "discriminatory" practices found in Sections 201 and 202 (via the general conduct standard), leaving the door open for *ex post* enforcement of a standard with no precedent in the broadband context); AT&T Comments at 51 (the Commission only provided a list of non-exhaustive factors and also said it would consider other, unnamed factors).

[376] Comcast Dippon Paper at 22; Charter Comments at 7; CTIA Comments at 7-8; Comcast Comments at 34; ACA Comments at 25 (explaining that, given past regulation of the cable industry, the Commission's claims that it would refrain from rate regulation were "simply not believable."); Free State Foundation Comments Appx. A, Perspectives from FSF Scholars, at 4 (Apr. 17, 2017) (asserting that even the potential for future rate regulation or forced access will impede investment into networks); *see also, e.g.*, *Business Data Services in an Internet Protocol Environment*, Report and Order, 32 FCC Rcd 3459, 3534-3535, paras. 171-172 (2017) (reversing the forbearance deemed granted to Verizon related to enterprise broadband services).

[377] CenturyLink Comments at 14, n 34.

[378] *Id*. at 13-14.

[379] AT&T Comments at 53; AT&T Reply at 47 (AT&T had reasoned that its zero-rating of DIRECTV customers' data would be uncontroversial, as it was effectively a bundled rebate arrangement, and wholly pro-consumer. They were thus surprised to find the program under a lengthy investigation by the Commission.). As such, we disagree with commenters who assert that maintaining the *Title II Order* regime is the best means of addressing regulatory

(continued….)

that this ever-present threat of regulatory creep is substantially likely to affect the risk calculus taken by ISPs when deciding how to invest their shareholders' capital, potentially deterring them from investing in broadband, and to encourage them to direct capital toward less inherently-risky business operations.[380] We find unpersuasive the alleged inconsistencies between ISPs claiming that the *Title II Order* decreased their willingness or ability to invest in broadband infrastructure, and their statements to investors that the *Title II Order* has not had a negative impact on their broadband deployments.[381] First, some of the comments claiming that corporate officers' statements to investors prove that Title II has increased investment use highly selective quotations that ignore other statements to investors that imply the opposite.[382] Second, as other commenters point out, the latter often constitute statements susceptible to multiple interpretations, such as AT&T CEO Randall Stephenson stating that his company planned to "deploy more fiber next year than [it] did this year."[383] Third, these ambiguous statements do not take into account the relevant counterfactual scenario in which Title II regulation had not been adopted.[384] Fourth, we observe that some of the comments attempting to highlight a discrepancy between statements to investors and statements in this proceeding simply show executives stating that their business *practices* will not change because they were not engaged in the conduct prohibited by the *Title II Order*, not that the firms' investment priorities remained the same after the *Title II Order*.[385]

103. *Small ISPs and Rural Communities.* The Commission's decision in 2015 to reclassify broadband Internet access service as a telecommunications service has had particularly deleterious effects on small ISPs and the communities they serve, which are often rural and/or lower-income. The record reflects that small ISPs and new entrants into the market face disproportionate costs and burdens as a result of regulation.[386] Many small ISPs lack the extensive resources necessary to comply with burdensome regulation,[387] and the record evinces a widespread consensus that reclassification of broadband Internet access service as a telecommunications service has harmed small ISPs by forcing

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uncertainty. *See* Home Telephone Company Comments at 17; CCIA Comments at 26-27; Internet Association Comments at iii.

[380] Verizon Comments, Exh. A., Andres V. Lerner and Janusz A. Ordover, *An Economic Analysis of Title II Regulation of Broadband Internet Access Providers* at 9-10 (Lerner & Ordover Decl.). Many ISPs are part of integrated multi-sector holding companies, which allows them to more easily shift capital away from sectors where their investments would face greater regulatory risk, and toward more investment-friendly sectors. Cox Comments at 16.

[381] Free Press Comments at 3; Public Knowledge Comments at 21; BBIC Comments at 4-5; INCOMPAS Comments at 12.

[382] George S. Ford, *Below the Belt: A Review of Free Press and the Internet Association's Investment Claims*, Phoenix Center Perspectives (June 20, 2017).

[383] R Street Reply at 7.

[384] *Id*. at 7-8.

[385] *Id*. at 8.

[386] *See, e.g.*, WISPA Comments at 10, 17 ("WISPs typically rely on their own money, family and friends, and in some cases, local financing. Private equity is available to very few WISPs."); ACA Comments at 25-26 (explaining that many small service providers have their houses and cars pledged against their bank loans financing their businesses).

[387] *See, e.g.*, National Grange Comments at 2; WISPA Comments at 13-14 (asserting that larger companies do not face such extreme challenges since they have large compliance departments and resources that can handle subscriber complaints); ACA Comments at 15-16 ("While a large provider with tens of millions of subscribers likely has the wherewithal to either absorb or litigate . . . fines, for a company with under 10,000 subscribers . . . a huge fine can be devastating.").

them to divert significant resources to legal compliance and deterring them from taking financial risks.[388]

104. Small ISPs state that these increased compliance costs and regulatory burdens have forced them to divert money and attention away from planned broadband service and network upgrades and expansions, thus delaying, deferring, or forgoing the benefits they would have brought "to their bottom lines, their customers, and their communities."[389] A coalition of National Multicultural Organizations highlights that the uncertainty inherent under Title II "already has produced results that slow needed innovation and broadband adoption, effects that are most acutely felt in rural and socioeconomically-challenged urban communities."[390] The record is replete with instances in which small ISPs reduced planned, or limited new, investment in broadband infrastructure as a result of the regulatory uncertainty stemming from the adoption of the *Title II Order*.[391] The Wireless Internet Service Providers

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[388] *See* CompTIA Comments at 5; ACA Comments at iii ("Following Title II reclassification, ACA members spent significant resources and incurred unexpected legal and consulting costs in trying to understand the impact of the decision and what it meant for their existing and planned services, and in taking steps to minimize the risk of enforcement actions and consumer complaints."); *id*. at 7-8 (asserting that the Commission's application of Sections 201 and 202 to broadband forced smaller ISPs to hire consultants and outside counsel to evaluate whether their existing rates, terms, conditions and practices were in conformity with the Act and assess the risk that they could later be judged to be out of compliance as a result of changes in the market or other external factors); *id*. at 7-13 ("Just the risk of an enforcement action under Section 208 required [one small ISP] to increase the amount of time and money . . . spent on legal services and recordkeeping and, going forward, requires [the ISP] to ensure funds are always available" in the event of enforcement actions.); WISPA Comments at 13-14 (asserting that small ISPs are forced to pay lawyers and consultants "to provide advice and direction to minimize any risk" that they will be judged after-the-fact to be out of compliance as the rules are so complex and difficult to fathom); Small Business & Entrepreneurship Council Comments at 4; WISPA Reply at 3; TIA Reply at 6 (asserting that the general conduct standard overburdens small ISPs with the need to involve counsel in every business decision).

[389] ACA Comments at ii.

[390] National Multicultural Organizations Comments at 10.

[391] *See, e.g.*, National Grange Comments at 2 (asserting that ISPs serving predominantly rural and underserved communities in Indiana, Arkansas, southwest Virginia, Washington State, northern Illinois and Missouri all curbed plans to expand high-speed internet deployment, citing the *Title II Order* as their reasoning); National Grange May 8, 2017 *Ex Parte* Letter at 3-4 (asserting that one small ISP that serves rural Arkansas, "had plans to triple its customer base by deploying a fixed wireless network across a three-county area, but the company was forced to forgo on that plan because of the risks associated with the Commission's Title II rules and the accompanying compliance costs"); NCTA Reply at 17-18 (asserting that "smaller cable operators, with even more limited resources to devote to compliance with the nebulous general conduct standard, have been even more reluctant to take risks and thus have foregone various pro-consumer initiatives"); ACA Comments at 19-20, 22 (explaining that the threat of enforcement caused small ISPs to "abandon [the] use of data caps as a network management tool altogether," and to abandon consideration of a caching arrangement . . . which would have benefited its customers by lowering its cost of Internet transport); ACA Comments at 25; Antietam Comments at 1; Coalition of 65 Comments at 3; Ken Cuccinelli Comments at 7; Mobile Future Comments at 8; Fiber Broadband Association Comments at Appendix 23; CTIA Comments at 27; ACA Comments at 23-24 (explaining that numerous ACA member companies had plans to upgrade their fiber systems, but had to curtail the scope of the plan, delay, or hold off altogether as a result of the threat of rate regulation); Letter from Dave Giles, InvisiMax, Mike Whelan, AirLink Internet Services, and Mark Radabaugh, Amplex Electric, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Dec. 8, 2017); Letter from Richard Sjoberg, President & Chief Executive Officer, Sjoberg's Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Dec. 8, 2017); Letter from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1 (filed Dec. 5, 2017); CALinnovates Comments at 6-7; ACA Reply at 9-12; Letter from William Bottiggi, General Manager, BELD Broadband, et al., to The Honorable Ajit Pai, Chairman, FCC, WC Docket No. 17-108, at 2 (filed May 11, 2017) (Letter from 19 Municipal ISPs) (citing the Title II classification as a substantial burden, requiring them to hire lawyers to navigate the risks, and "often delay or hold off from rolling out a new feature or service because [they] cannot afford to deal with a potential complaint and enforcement action"); WISPA Reply at 7; TIA Reply at 6. Because the logical expectation that Title II regulation would have particularly harmful effects on small ISPs and the communities they serve in is borne out by strong

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Association (WISPA) surveyed its members and found that over 80 percent had "incurred additional expense in complying with the Title II rules, had delayed or reduced network expansion, had delayed or reduced services and had allocated budget to comply with the rules."[392] The threat of *ex post* rate regulation has hung particularly heavily on the heads of small ISPs, "who are especially risk-averse, causing them to run all current and planned offerings against the 'just' and 'reasonable' and unreasonably discriminatory standards of sections 201 and 202 of the Act."[393] The effects have been strongly felt by small ISPs, given their more limited resources, leading to depressed hiring in rural areas most in need of additional resources.[394]

105. Compounding the difficulties faced by small ISPs, the record also reflects that the "'black cloud' of common carriage regulations" resulted in increased difficulties for small ISPs in obtaining financing.[395] A coalition of 70 small wireless ISPs cited the uncertainty created by the *Title II Order* as a major reason that their costs of capital have risen, preventing them from further expanding and improving their networks.[396] The new regulatory burdens, risks, and uncertainties combined with "diminished access to capital create a vicious cycle—the regulatory burdens make it more difficult to attract capital, and less capital makes it more difficult to comply with regulatory burdens."[397] A coalition of 19 municipal ISPs cited high legal and consulting fees necessary to navigate the *Title II Order*, as well as regulatory compliance risk as a reason for delaying or abandoning new features and services.[398] While, of course, not all small ISPs have faced these challenges,[399] there is substantial record evidence that regulatory uncertainty resulting from the Commission's reclassification of broadband Internet access service in 2015 risks stifling innovation, and that it has already done so with respect to small ISPs, which ultimately harms consumers.

106. We anticipate that the beneficial effects of our decision today to restore the classification of broadband Internet access service to an information service will be particularly felt in rural and/or

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record evidence from a wide range of small ISPs, we are unpersuaded by speculative suggestions that small ISPs' investment decisions can be fully or primarily explained based on other considerations such that the effect of Title II regulation can be neglected. *See, e.g.*, Home Telephone Company Comments at 6-7, 18 (asserting "the main driver for smaller provider's investment decisions is the rapidly failing federal universal support system"); Community Technology Advisory Board Comments at 3 (arguing that "a more likely explanation for ISPs' reluctance to invest in broadband infrastructure . . . may be the lack of competition among last-mile ISPs"); ILSR Comments at 4 (asserting that there is little incentive to upgrade infrastructure in areas where there is little competition).

[392] WISPA Comments at 14.

[393] ACA Comments at iii.

[394] *Id*. at 27 (discussing members' decreased "ability to invest in hiring staff as a result of the reclassification order"); ACA Reply at 9-10.

[395] *See, e.g.*, Cisco Comments at 9; ACA Comments at 16 (asserting that Title II reclassification was factored into the calculation of lending institutions, negatively impacting small ISPs' ability to get outside funding); ACA Reply at 3.

[396] Letter from Mark Radabaugh, President, Amplex, et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O'Rielly, Commissioner, FCC, WC Docket No. 17-108, at 2 (filed May 9, 2017) (70 Small WISPs May 9, 2017 Letter).

[397] 70 Small WISPs May 9, 2017 Letter at 1.

[398] Letter from 19 Municipal ISPs at 2.

[399] *See, e.g.*, Public Knowledge Comments at 81-82; ILSR Comments at 3; Home Telephone Company Comments at 6, 7; AARP Comments at 66-67, 70-71; Free Press Comments at 263-75; CCIA Comments at 15; City and County of San Francisco Comments at 7-8; Free Press Comments at 105-06, 110, 111-14, 118-20, 142, 149, 232-41; New Media Rights Comments at 8-9; Volo Broadband Comments at 1; Letter from Kevin Taglang, Benton Foundation, WC Docket No. 17-108 at 4 (filed May 3, 2017); Public Knowledge Reply at 19.

lower-income communities, giving smaller ISPs a stronger business case to expand into currently unserved areas.[400] Enabling ISPs to freely experiment with services and business arrangements that can best serve their customers, without excessive regulatory and compliance burdens, is an important factor in connecting underserved and hard-to-reach populations. We are committed to bridging the digital divide, and recognize that small ISPs "disproportionately provide service in rural and underserved areas where they are either the only available broadband service option or provide the only viable alternative to an incumbent broadband provider."[401] We anticipate that returning broadband Internet access service to a light-touch regulatory framework will help further the Commission's statutory imperative to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans"[402] by helping to incentivize ISPs to expand coverage to underserved areas.[403]

107. *Investment at the Edge.* Finally, to more fully discern the impact of Title II, we must look at investment throughout the broadband ecosystem, including investment and innovation at the edge, as well as with other ecosystem participants (manufacturers, etc.).[404] We agree with commenters who assert that looking only at ISP investment ignores investment that is occurring at the edge.[405] While there is tremendous investment occurring at the edge,[406] the record does not suggest a correlation between edge

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[400] *See* WISPA Comments at 16; ACA Comments at 29. We therefore reject arguments that our classification decision harms low-income communities. *See* Letter from Kathy Sheehan, Mayor, City of Albany, New York, et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O'Rielly, Commissioner, The Honorable Brendan Carr, Commissioner, and The Honorable Jessica Rosenworcel, Commissioner, FCC, WC Docket No. 17-108, at 1-2 (filed Dec. 7, 2017) (Mayors Letter).

[401] *See* WISPA Reply at 6; *see also* Cisco Systems Comments at 9 (detailing how small ISPs were better able to invest under Title I); ACA Comments at 25-26; WISPA Comments at 26 (explaining how many WISPs are using less-valued spectrum to wirelessly connect sparsely populated regions "that would otherwise be unserved by wireline technologies").

[402] 47 U.S.C. § 1302(a).

[403] *Cf., e.g.*, League of United Latin American Citizens Comments at 2 ("[B]y raising costs, reducing broadband investment and discouraging innovative cost sharing solutions such as Zero rating, Title II has likely slowed down progress at closing the digital divide rather than accelerating it."); Cisco Comments at 9 (noting that a coalition of broadband providers explained that the uncertainty surrounding the Title II regulatory framework hindered their ability to meet their customers' needs, and inhibited their ability to "build and operate networks in rural America").

[404] Comments of Ad Hoc Coalition of 17 Small and Mid-Size Manufacturers of Products for Broadband Networks at 3-4 (while diminished ISP investment from Title II hurts all hardware companies, small companies suffer disproportionately as they usually only manufacture products for a single industry, and their revenue is usually dependent on a smaller number of customers); *id.* at 4 (their publicly-traded members must warn their stockholders that the *Title II Order* "may result in fewer opportunities for [them] to sell [their] products to both current and prospective customers."); Letter from Brian Paul, Chief Financial Officer, Actiontec, to The Honorable Ajit Pai, Chairman, FCC, WC Docket No. 17-108, at 1 (filed Aug. 29, 2017) ("a manufacturer of consumer products for the Internet and a Minority Business Enterprise," highlighting the negative effect that the *Title II Order* has on its business); Letter from ADTRAN, et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O'Rielly, Commissioner, The Honorable Brendan Carr, Commissioner, and The Honorable Jessica Rosenworcel, Commissioner, FCC, WC Docket No. 17-108, at 2 (filed Aug. 30, 2017) (Letter from Coalition of 15 High-Tech Manufacturers) ("the effects of depressed infrastructure investment extends to many adjacent sectors—connectivity-driving high-tech manufacturing most of all."); Ericsson Comments at 7 (describing how regulatory uncertainty under the *Title II Order* impeded its ability to collaborate with ISPs on various network technology initiatives).

[405] AARP Comments at 78; AARP Reply at 26; INCOMPAS Comments at 39; Nicolas Economides Comments at 3.

[406] Comcast Comments at 6 ("[E]dge providers have experienced explosive growth, with virtually every online content provider seeing massive increases in market capitalization while the Commission maintained a light regulatory touch under its prior Title I classification of BIAS."); Cox Comments at 15 ("The growth in edge services enabled by increasingly robust and ubiquitous broadband networks has been . . . dramatic. By the end of 2014,

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provider investment and Title II regulation, nor does it suggest a causal relationship that edge providers have increased their investments as a result of the *Title II Order*. Free Press argues that since adoption of the *Title II Order*, innovation and investment at the edge has increased.[407] While high growth rates are associated with the Internet industry, the evidence presented does not show the imposition of Title II regulation on Internet access service providers caused recent edge provider investment. That requires an estimate as to what would have happened in the absence of Title II regulation (e.g., analysis following the methods employed in the studies of Ford, and of Hazlett & Wright).

108. In fact, one could argue that in the absence of Title II regulation, edge providers would have made even higher levels of investment than they undertook. In many cases, the strongest growth for a firm or industry predates the *Title II Order*. For example, Free Press highlights that the data processing, hosting, and related services industry increased capital expenditures by 26 percent in 2015,[408] a significant increase in investment. However, in 2013, well before the 2014 *Open Internet NPRM* that led to the *Title II Order*, that industry increased investment by over 100 percent. Similarly, Netflix's greatest relative increase in capital expenditures occurred in 2013.[409] Amazon increased its spending on technology and content, which consists primarily of research and development expenses, by 28 percent in 2016, while in 2013 the increase was 41 percent.[410] We do not claim that these data points prove that edge provider investment would have been greater in the absence of the *Title II Order*, but we find that Free Press does not demonstrate that there is a significant difference in the investment behavior of edge providers due to the *Title II Order*.

2. Utility-Style Regulation of Broadband Is a Solution in Search of a Problem

109. *The Internet was open before Title II, and many economic factors support openness.* The Internet thrived for decades under the light-touch regulatory regime in place before the *Title II Order*, as ISPs built networks and edge services were born. We find that the sparse evidence of harms discussed in the *Title II Order*—evidence repeated by commenters in this proceeding as the basis for adopting a Title II classification—demonstrates that the incremental benefits of Title II over light-touch regulation are inconsequential, and pale in comparison to the significant costs of public-utility regulation.[411]

110. The Internet as we know it developed and flourished under light-touch regulation. It is self-evident that the hypothetical harms against which the *Title II Order* purported to protect did not thwart the development of the Internet ecosystem. Edge providers have been able to disrupt a multitude of markets—finance, transportation, education, music, video distribution, social media, health and fitness,

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venture capital funding for Silicon Valley reached nearly $20 billion, up from roughly $6 billion in 2005. Among other innovations, the rise of video streaming services has been particularly noteworthy. By 2015, more than 88 million Americans subscribed to an online video distribution service—a category that did not even exist a decade earlier. And the percentage of Internet traffic devoted to online video spiked from 12 percent to 76 percent between 2006 and 2015."); NCTA Comments at 28 ("[T]he Commission's deliberate policy of minimal regulation [prior to 2015] was an unqualified success, as ISPs and edge providers made massive investments."); Writers Guild of America West Comments at 2 ("With unfettered access to consumers, edge providers have invested billions in new content, services and applications.").

[407] Free Press Comments at 170-208.

[408] *Id.* at 174 (citing the Census Bureau's Annual Capital Expenditure Survey).

[409] *Id.* at 180.

[410] *Id.* at 184. According to Amazon's 10-K filing with the SEC, the increase was 44 percent in 2013. *See* Amazon Inc., Annual Report (Form 10-K) (2013).

[411] CenturyLink Comments at 8; AT&T Econ. Decl. at 10. We therefore reject the argument that sparse evidence of harms is sufficient to justify the imposition of Title II. *See* IFTA Comments at 7 ("[*Comcast-BitTorrent*] may be "only one" incident—but it is illustrative of the risk that no new start-up video service and no consumer can afford to take.").

and many more—through innovation, all without subjecting the networks that carried them to onerous utility regulation. It is telling that the *Title II Order* and its proponents in this proceeding can point only to a handful of incidents that purportedly affected Internet openness, while ignoring the two decades of flourishing innovation that preceded the *Title II Order*.[412]

111. The first instance of actual harm cited by the *Title II Order* involved Madison River Communications, a small DSL provider accused in 2005 of blocking ports used for VoIP applications, thereby foreclosing competition to its telephony business. Madison River entered into a consent decree with the Enforcement Bureau, paying $15,000 to the U.S. Treasury and agreeing that it "shall not block ports used for VoIP applications or otherwise prevent customers from using VoIP applications."[413] Vonage, an over-the-top VoIP provider, later confirmed in press reports that it had initiated a complaint against Madison River at the Commission and that other small ISPs had blocked its VoIP services.[414]

112. Next, the *Title II Order* referenced Comcast's throttling of BitTorrent, a peer-to-peer networking protocol. Comcast, which was at the time the nation's second-largest ISP, admitted that it interfered with about a tenth of BitTorrent TCP connections, and independent investigations suggested that Comcast interfered with over half of BitTorrent streams.[415] After receiving a formal complaint about the practice, the Commission found "that Comcast's conduct poses a substantial threat to both the open character and efficient operation of the Internet, and is not reasonable," and ordered Comcast to cease the interference.[416] However, the D.C. Circuit vacated the Commission's order in *Comcast*.[417]

113. *Madison River* and *Comcast-BitTorrent*—the anecdotes most frequently cited in favor of Title II regulation—demonstrate that any problematic conduct was quite rare.[418] The more recent incidents discussed in the *Title II Order* also show that since 2008, few tangible threats to the openness of the Internet have arisen.[419] First, in 2012, AT&T restricted customers on certain data plans from

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[412] *See Title II Order*, 30 FCC Rcd at 5628, n.123.

[413] *Madison River Communications*, File No. EB-05-IH-0110, Order, 20 FCC Rcd 4295 (EB 2005) (*Madison River Order*).

[414] Declan McCullagh, *Telco agrees to stop blocking VoIP calls*, CNET (Mar. 3, 2005) https://www.cnet.com/news/telco-agrees-to-stop-blocking-voip-calls/.

[415] *Comcast-BitTorrent Order*, 23 FCC Rcd 13028, 13030, para. 5.

[416] *Id.* at 13058, para. 51. While the Commission found that OVDs using BitTorrent were a "competitive threat to cable operators such as Comcast," there are strong arguments that Comcast interfered with BitTorrent in an attempt to manage its network, rather than to disadvantage OVDs. *See* NCTA Reply at 28 (asserting that "the intervention was not motivated by any anticompetitive objective, as even critics of Comcast concede") (citing Harold Feld, "Evaluation of the Comcast/BitTorrent Filing — Really Excellent, Except For The Gapping [*sic*] Hole Around the Capacity Cap" (Sept. 22, 2008) ("[I]t appears to me that Comcast did not block for anticompetitive reasons.")), http://www.wetmachine.com/tales-of-the-sausage-factory/evaluation-of-thecomcastbittorrent-filing-really-excellent-except-for-the-gapping-hole-around-the-capacity-cap/).

[417] *Comcast*, 600 F.3d at 642.

[418] *See* Daniel Oglesby Comments at 1; AT&T Comments at 19-20; Comcast Reply at 29; ITIF Reply at 12; Technology Policy Institute (Leonard & Wallsten) Comments at 4; AT&T Reply at 17; *cf.* R Street Comments at 13 ("[M]any have argued that we have had *de facto* Net Neutrality for decades, because norms of transparency and fairness led broadband providers and edge providers to engage in open and fair competition, even without regulations.") (citing Timothy B. Lee, *The Durable Internet: Preserving Network Neutrality Without Regulation*, Cato Policy Analysis at 12 (Nov. 12, 2008)).

[419] Indeed, three of the handful of concrete incidents cited in the *Title II Order* were cited in the *Open Internet Order*. *Open Internet Order*, 25 FCC Rcd at 17925, nn.104-05. *See* AT&T Comments at 20-21 ("That the *Title II Order* had to rely on these "incidents" in the first place speaks volumes about the weakness of its purported empirical justification for reclassification.").

accessing FaceTime on its cellular network for three months.[420] AT&T contended it did so due to network management concerns,[421] while application developers argued the restriction limited consumer choice. Regardless of the merits, AT&T ultimately reversed its decision within three months and the decision did not affect consumers who had data caps.[422]

114. The final example—though not an example of harm to consumers—discussed in the *Title II Order* was Comcast's Xfinity TV application for the Xbox, which was criticized for exempting subscribers from their Comcast data caps. However, the service was provided as a specialized service, similar to certain VoIP and video offerings that use IP but are not delivered via the public Internet.[423] Accordingly, the Xfinity Xbox application was not subject to the 2010 or 2015 rules, as it was a so-called "non-BIAS data service."[424] However, the *Title II Order* further clouded this carve-out for innovative services by threatening to enforce the rules adopted under the *Order* against ISPs if it deemed after the fact, that those services were "functional equivalents" of broadband Internet access services, as the *Open Internet Order* had done in 2010.[425]

115. Certain commenters have claimed that there have been other harms to Internet openness, but most of their anecdotes do not entail harms that the *Title II Order* purported to combat.[426] Electronic Frontier Foundation and the Internet Engineers point to a number of alleged practices by ISPs, including stripping encryption from certain communications, inserting JavaScript code into third-party webpages, sending search data to third parties, and adding cookies.[427] However, none of the bright-line rules promulgated in the *Title II Order* would have halted these practices, and whether they are covered by the

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[420] *See Title II Order*, 30 FCC Rcd at 5628, n.123.

[421] *See* Jim Cicconi, AT&T Senior Executive Vice President of External and Legislative Affairs, *A Few Thoughts on FaceTime* (Nov. 8, 2012), https://www.attpublicpolicy.com/broadband/a-few-thoughts-on-facetime/.

[422] *Id*.

[423] *See* AT&T Comments at 20 (The Title II Order "did not mention that the Comcast Xbox service—much like AT&T's U-verse IP video service or Comcast's Stream service today—is a managed video service delivered over a closed network, not an over-the-top service delivered over the broadband Internet platform. The Commission has always carved such "specialized services" out of the scope of its net neutrality rules, including in the *Title II Order* itself."); AT&T Reply at 20 (Comcast's Xbox Xfinity was a "specialized service delivered over a closed IP platform."); Peha Light-Touch Regulation Comments at 14 ("A communications service can be considered a specialized service under Open Internet rules if the service is only used to provide a service that is subject to telephone regulations or to cable TV regulations.").

[424] *See Title II Order*, 30 FCC Rcd at 5696-97, paras. 208-09; *Open Internet Order*, 25 FCC Rcd at 17965-66, paras. 112-114.

[425] *Title II Order*, 30 FCC Rcd at 5697, para. 210; *Open Internet Order*, 25 FCC Rcd at 17966, para. 113.

[426] *See* New Media Rights Comments at 10 (AT&T used web-streaming program that censored politically-charged Pearl Jam lyrics in 2007); Twilio Comments at 2 (alleging conduct in the provision of text messaging service, rather than broadband Internet access service). We also reject the argument that evidence of harms in foreign countries is relevant in this proceeding. *See* Engine Comments at 20-21 (Canadian ISP blocked website of striking union, European ISPs restrict access to P2P and VoIP applications); Microsoft Comments at 14-15 (Skype blocked or degraded in foreign countries). As AT&T argues, that Title II proponents "perceive any need to cite these . . . foreign 'incidents' . . . simply underscores the paucity of 'problems' that require a regulatory solution of any kind." AT&T Reply at 19. We also recognize the existence of consumer complaints, but for the reasons discussed in Part VI.B below, we do not find them indicative of actual harm that the Commission's net neutrality rules are intended to protect against.

[427] *See* EFF Comments at 14-15; Internet Engineers Comments at 34-40.

"general conduct rule" is at best unclear.[428]

116. Because of the paucity of concrete evidence of harms to the openness of the Internet, the *Title II Order*[429] and its proponents have heavily relied on purely speculative threats.[430] We do not believe hypothetical harms, unsupported by empirical data, economic theory, or even recent anecdotes, provide a basis for public-utility regulation of ISPs.[431] Indeed, economic theory demonstrates that many of the practices prohibited by the *Title II Order* can sometimes harm consumers and sometimes benefit consumers; therefore, it is not accurate to presume that all hypothetical effects are harmful.[432] Intrusive, investment-inhibiting Title II regulation requires a showing of actual harms, and after roughly fifteen years of searching, proponents of Title II have found "astonishing[ly]" few.[433] Further, the transparency rule we adopt today will require ISPs to clearly disclose such practices and this, coupled with existing consumer protection and antitrust laws, will significantly reduce the likelihood that ISPs will engage in actions that would harm consumers or competition. To the extent that our approach relying on transparency requirements, consumer protection laws, and antitrust laws does not address all concerns, we

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[428] *See infra* para. 249. Similarly, the claim among several commenters that certain mobile providers blocked Google Wallet is misleading. *See, e.g.*, OTI New America Comments at 11-13; New Media Rights Comments at 10; Engine Comments at 20. Mobile providers refused to support Google Wallet because it required integration with the secure element of the handset's SIM card, which mobile providers believed introduced security vulnerabilities. *See* David Ruddock, *A Brief History Of Verizon And Google Wallet, And Why The Carrier Is Still Allowed To "Block" It*, Android Police (May 1, 2013), http://www.androidpolice.com/2013/05/01/a-brief-history-of-verizon-and-google-wallet-and-why-the-carrier-is-still-allowed-to-block-it/; AT&T Reply at 17-18; Will Rinehart Comments at 3. OTI's argument about AT&T blocking Slingbox—which "redirected a TV signal" to the iPhone app—from its 3G network in 2009 fails to provide support for Title II regulation for a similar reason, because as AT&T explained at the time, "we don't restrict users from going to a Web site that lets them view videos. But what our terms and conditions prohibit is the transferring, or slinging, of a TV signal to their personal computer or smartphone." *See* Engadget, *AT&T issues official statement on SlingPlayer's 3G blackout for iPhone*, (May 12, 2009), https://www.engadget.com/2009/05/12/atandt-issues-official-statement-on-slingplayers-3g-blackout-for/. In an attempt to manage its 3G network, AT&T restricted slinging to Wi-Fi, while reiterating that consumers could still access video streaming websites.

[429] *See Title II Order*, 30 FCC Rcd at 5629, para. 128 ("[B]roadband providers *are in a position* to function as a gatekeeper . . . [and] *can* exploit this role by acting in ways that may harm the open Internet); *id.* at 5632, para. 82 ("Broadband providers *may seek* to gain economic advantages by favoring their own or affiliated content . . . Such practices *could result* in so-called 'tolls' for edge providers . . .); *id.* at 5645, para. 103 ("Paid prioritization agreements . . . *have the potential* to distort the market . . . .") (emphases added).

[430] *See, e.g.*, Public Knowledge Comments at 76, 101 (an "ISP . . . *can* economically compel an edge service to pay monopoly rates"; "Absent clear instruction from the FCC, broadband providers *will* interfere with consumers' ability to get online"); INCOMPAS Comments at 23 ("*[I]magine* a broadband provider that owns or has a financial interest in the success of an upstream supplier of network-dependent goods or services. . . . Disadvantaging *could* take the form of foreclosure, but it *could* also involve more subtle economic forms of preference . . . .); Internet Engineers Comments at 31 ("ISPs *could* degrade . . . certain protocols, content, or websites. . . . ISPs *could* decide to violate the end-to-end principle. . . . Developers and engineers *would no longer* be able to depend on the core assumption that the Internet will treat all data equally.") (emphases added); ACLP Comments at 6 ("Net neutrality rules have always been framed as prophylactic protection against 'threats' rather than actual harms.").

[431] *See, e.g.*, AT&T Comments at 21-22 ("[A] purely speculative claim of need for market intervention at some point in the future cannot outweigh the certain costs of imposing such regulation today.")

[432] *See infra* paras. 255-262.

[433] *See USTelecom*, 825 F.3d at 761-62 (Williams, J., dissenting); *Verizon*, 740 F.3d at 664-65 (Silberman, J., dissenting) ("That the Commission was able to locate only four potential examples of such conduct is, frankly, astonishing. In such a large industry where, as Verizon notes, billions of connections are formed between users and edge providers each year, one would think there should be ample examples of just about any type of conduct."). Indeed, the comments of a major ISP's CEO to a business magazine more than ten years ago figures prominently in the arguments of some Title II proponents. *See, e.g.*, Microsoft Comments at 12-13; Techdirt Comments at 6.

find that any remaining unaddressed harms are small relative to the costs of implementing more heavy-handed regulation.

117. *Incentives*. We find, based on the record before us, that ISPs have strong incentives to preserve Internet openness, and these interests typically outweigh any countervailing incentives an ISP might have.[434] Consequently, Title II regulation is an unduly heavy-handed approach to what, at worst, are relatively minor problems. Although the *Title II Order* argued that ISPs were incentivized to harm edge innovation,[435] it also conceded that ISPs benefit from the openness of the Internet. The *Title II Order* found that "when a broadband provider acts as a gatekeeper, it actually chokes consumer demand for the very broadband product it can supply."[436] We agree. The content and applications produced by edge providers often complement the broadband Internet access service sold by ISPs, and ISPs themselves recognize that their businesses depend on their customers' demand for edge content.[437] It is therefore no surprise that many ISPs have committed to refrain from blocking or throttling lawful Internet

[434] *See, e.g.*, Entertainment Software Association (ESA) Comments at 8 ("Open Internet protections are most needed when broadband providers have an incentive to use their special position to advantage their own services. Without recourse against such anti-competitive behavior, third-party providers would be disadvantaged in reaching customers with competing online services."); INCOMPAS Comments at 8, 23-24 ("Disadvantaging unaffiliated content providers is a well-recognized form of action that can harm competition and consumers."); Peha Light-Touch Regulation Comments at 3 ("A BIAS provider can also extract monopoly or oligopoly rents from content, application, service or device markets even if the BIAS provider does not compete directly in any of these markets."); AARP Reply at 32 ("Under the ICE theory, a broadband platform provider will recognize the efficiencies that it gains from encouraging providers of complements (such as over-the-top video) on its broadband platform. . . . However, the ICE theory breaks down when the platform owner produces its own versions of the complementary services, and thus faces competition from the third-party providers for its own complementary services. Under those circumstances, the internalization of complementary efficiencies is outweighed by the broadband ISP's desire to increase the profitability of its own offerings, e.g., its own video programming. This exception to the ICE theory is a growing phenomenon.").

[435] Some commenters in this record assert this as well. *See, e.g.*, AARP Comments at 14; INCOMPAS Comments at 72; OTI New America at 109; Free Press Comments at 66; Internet Association Comments at 19, 23; Public Knowledge Comments at 105.

[436] *See Title II Order*, 30 FCC Rcd at 5608, para. 20.

[437] *See* Verizon Comments at 34; Charter Comments at 2; NCTA Comments at 51 (asserting that "it would be irrational for ISPs to undermine the very openness that has long buoyed their businesses for some short-term gain."); CenturyLink Comments at 8-9 ("In this environment, broadband providers have every incentive to design, maintain and manage their networks in a way that meets end user expectations for openness."); ACLP Comments at 7-8 ("ISPs derive the lion's share of their revenues from residential and business subscriptions to voice, video, and/or data products. This means that any effort to degrade or limit a person's enjoyment of their user experience—by, for example, blocking a popular website or unnecessarily throttling a popular service—would harm their bottom lines, both from subscriber loss and public pressure that would likely harm their stock price."); Technology Policy Institute (Leonard & Wallsten) Comments at 2; Cox Comments at 22 ("a BIAS provider that fails to adhere to principles of openness, thereby upsetting consumer expectations, would risk driving customers to rival providers."); AT&T Reply at 23 ("No broadband provider has an interest in defeating consumers' long-settled expectation of access to the full Internet because, if it did so, it would devalue its service and lose its customers to rivals in this highly competitive marketplace."); Daniel Lyons, *Net Neutrality and Nondiscrimination Norms in Telecommunications*, 54 Ariz. L.R. 1029, 1036-37 (2012) ("[B]roadband providers generally have strong incentives *not* to block content or applications on their networks. At their core, these companies do not themselves provide most online products that their customers want. Rather, broadband providers connect customers to the services available in cyberspace—and the value of that connection to the customer is directly related to the number of sites the customer can reach. . . . Every website or application that is blocked reduces the value of broadband access to the consumer and, therefore, adversely affects the price the consumer will pay for the broadband provider's service.").

conduct notwithstanding any Title II regulation.[438] Finally, to the extent these economic forces fail in any particular situation, existing consumer protection and antitrust laws additionally protect consumers.[439] We therefore find that Title II, and the attendant utility-style regulation of ISPs, are an unnecessarily heavy-handed approach to protecting Internet openness.

118. The *Open Internet* and *Title II Orders* claimed to base their actions on a theory that broadband adoption is driven by a "virtuous cycle," whereby edge provider development "increase[s] end-user demand for [Internet access services], which [drive] network improvements, which in turn lead to further innovative network uses."[440] The *Title II Order* concluded that Commission action was necessary to protect this virtuous cycle because "gatekeeper" power on the part of ISPs might otherwise thwart it,[441] as ISPs "are unlikely to fully account for the detrimental impact on edge providers' ability and incentive to innovate and invest."[442] However, the economic analysis in the *Open Internet Order* and *Title II Order* was at best only loosely based on the existing economics literature, in some cases contradicted peer-reviewed economics literature, and included virtually no empirical evidence.

119. We find it essential to take a holistic view of the market(s) supplied by ISPs. ISPs, as well as edge providers, are important drivers of the virtuous cycle, and regulation must be evaluated accounting for its impact on ISPs' capacity to drive that cycle, as well as that of edge providers. The underlying economic model of the virtuous cycle is that of a two-sided market.[443] In a two-sided market, intermediaries—ISPs in our case—act as platforms facilitating interactions between two different customer groups, or sides of the market—edge providers and end users. The *Open Internet Order* takes the position that edge provider innovation drives consumer adoption of Internet access and platform upgrades. The key characteristic of a two-sided market, however, is that participants on each side of the market value a platform service more as the number and/or quality of participants on the platform's other side increases. (The benefits subscribers on one side of the market bring to the subscribers on the other, and *vice versa*, are called positive externalities.)[444] Thus, rather than a single side driving the market, both sides generate network externalities, and the platform provider profits by inducing both sides of the market to use its platform. In maximizing profit, a platform provider sets prices and invests in network

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[438] Comcast Comments at 54-55, 64; Frontier Comments at 6; Cox Comments at 20-21; Verizon Comments at 20; AT&T Comments at 101.

[439] *See infra* Part. 3.

[440] *Open Internet Order*, 25 FCC Rcd at 17910-11, para. 14; *Title II Order*, 30 FCC Rcd at 5603, 5604, 5608-09, paras. 2, 7, 20-21.

[441] *Open Internet Order*, 25 FCC Rcd at 14868, para. 24 (asserting that "broadband providers have the ability to act as gatekeepers"); *Title II Order*, 30 FCC Rcd at 5608-09, 5628, paras. 20-21, 78.

[442] *Open Internet Order*, 25 FCC Rcd at 14867-68, paras. 23-25. While the primary reason for this seems to be concern about the exercise of market power, footnote 68 suggests a secondary reason: ISPs "will typically not take into account the effect that reduced edge provider investment and innovation has on the attractiveness of the Internet to end users that rely on other broadband providers—and will therefore ignore a significant fraction of the cost of foregone innovation." However, neither the *Open Internet Order* nor our record provide a mechanism to explain how this would occur, and why the impact on the ISP would not be proportional to its own business, and so be fully accounted for in its decisions, and provides no evidence that even if possible, there was a measurable impact from such an effect.

[443] Notably, the two-sided market we discuss here is the economic concept; we are not attempting to define a market for antitrust purposes. *See US Airways, Inc. v. Sabre Holdings Corp.*, 2017 WL 1064709, at *8 (SDNY Mar. 21, 2017).

[444] *See*, *e.g.*, Alexander White, *The Economics of Online Platforms*, The New Palgrave Dictionary of Economics, (2012); Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. Econ. Persp. 125 (2009) (Rysman); Alexander White & E. Glen Weyl, *Insulated Platform Competition* (Apr. 18, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1694317 (White & Weyl).

extension and innovation, subject to costs and competitive conditions, to maximize the gain both sides of the market obtain from interacting across the platform. The more competitive the market, the larger the net gains to subscribers and edge providers. Any analysis of such a market must account for each side of the market and the platform provider.

120. Innovation by ISPs may take the form of reduced costs, network extension, increased reliability, responsiveness, throughput, ease of installation, and portability. These types of innovations are as likely to drive additional broadband adoption as are services of edge providers. In 2016, nearly 80 percent of Americans used fixed Internet access at home.[445] There is no evidence that the remaining nearly one-fifth of the population are all waiting for the development of applications that would make Internet access useful to them. Rather, the cost of broadband Internet access service is a central reason for non-adoption.[446] ISP innovation that lowers the relative cost of Internet access service is as likely as edge innovation, if not more so, to positively impact consumer adoption rates. Indeed, ISPs likely play a crucial role by offering, for example, low-margin or loss-leading offers designed to induce skeptical Internet users to discover the benefits of access.[447] In response to a larger base of potential customers, the returns to innovation by edge providers would be expected to rise, thereby spurring additional innovative activity in that segment of the market.

121. Accordingly, arguments that ISPs have other incentives to take actions that might harm the virtuous cycle, and hence might require costly Title II regulation, need to be explained and evaluated empirically. In a two-sided market, three potential reasons for Title II regulation arise: the extent to which ISPs have market power in selling Internet access to end users; the extent to which ISPs have market power in selling to edge providers access to the ISP's subscribers (end users), which seems to primarily be to what the Commission and others appear to be referring when using the term "gatekeeper"; and the extent to which the positive externalities present in a two-sided market might lead to market failure even in the absence (or because of that absence) of ISP market power. In considering each of these, we find that, where there are problems, they have been overestimated,[448] and can be substantially

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[445] The ratio of residential fixed broadband subscribers to households was 79.4 percent, of which 72.2 percent subscribed to fixed wireline services (excluding traditional DSL) at speeds of at least 3 Mbps down and 0.768 Mbps up (FCC Form 477 Subscription Data, December 2016, and Federal Communications Commission, Staff Block Estimates, 2016 update, https://www.fcc.gov/reports-research/data/staff-block-estimates; *see also* Pew Research Center, *Internet/Broadband Fact Sheet*, (Jan. 12, 2017), available at http://www.pewinternet.org/fact-sheet/internet-broadband/.

[446] John H. Horrigan & Maeve Duggan, Pew Research Center, *Home Broadband 2015*, (Dec. 21, 2015), available at http://www.pewinternet.org/2015/12/21/home-broadband-2015/ ("Non-broadband adopters who view a lack of home service as a major disadvantage are also more likely to cite the monthly cost of broadband as the primary reason they do not subscribe. Price sensitivity, in other words, is greatest among those who are most likely to see the advantages of a home broadband subscription."); *see also* O. Carare, et al. *The willingness to pay for broadband of non-adopters in the U.S.: Estimates from a multi-state survey*, 30 Info. Econ. & Pol'y -19, 21 (2015) (asserting that "approximately one-third of non-adapters surveyed indicate that price of the service is a relevant factor.").

[447] *See, e.g.*, Strategies and Recommendations for Promoting Digital Inclusion, Consumer and Governmental Affairs Bureau, Federal Communications Commission, at 19-20 (Jan. 11, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342993A1.pdf (explaining how Comcast has innovated on an original regulatory requirement, and how other ISPs have followed that example).

[448] *See, e.g.,* INCOMPAS Comments at 25 ("[I]ncumbent broadband providers whose facilities are used for the consumption of long-form video have market power in the classic sense. That is to say, they are able to maintain supra-competitive pricing because of large market shares, limited competitive choices, high switching costs and high barriers to entry. . . . That is true in both the local markets for the subscription to broadband internet access service and the national market upstream for the distribution of content. In the first market, the customers are residential consumers, in the second the customers are those companies that wish to deliver traffic to the broadband providers for their local delivery to subscribers.").

eliminated or reduced by the more light-handed approach this order implements.[449]

122. Our approach recognizes our limits as regulators, and is appropriately focused on the long-lasting effects of regulatory decisions. Thus, we seek to balance the harms that arise in the absence of regulation against the harms of regulation, accounting for, in particular, the effects of our actions on investment decisions that could increase competition three to five or more years from now.[450] We note that our reclassification of broadband Internet access service as an information service leaves the usual recourse of antitrust and consumer protection action available to all parties. That is, heavy-handed Title II regulation is unnecessary to enforce antitrust and consumer protection laws.

123. *Fixed ISPs Often Face Material Competitive Constraints.* The premise of Title II and other public utility regulation is that ISPs can exercise market power sufficient to substantially distort economic efficiency and harm end users.[451] However, analysis of broadband deployment data, coupled with an understanding of ISPs' underlying cost structure, indicates fixed broadband Internet access providers frequently face competitive pressures that mitigate their ability to exert market power.[452] Therefore, the primary market failure rationale for classifying broadband Internet access service under Title II is absent. Furthermore, the presence of competitive pressures in itself protects the openness of the Internet. The theory that competition is the best way to protect consumers is the "heart of our national economic policy" and the premise of the 1996 Act.[453] We therefore find that the competition that exists in the broadband market, combined with the protections of our consumer protection and antitrust laws against anticompetitive behaviors, will constrain the actions of an ISP that attempts to undermine the openness of the Internet in ways that harm consumers, and to the extent they do not, any resulting harms are outweighed by the harms of Title II regulation.

124. *ISP Competition in Supplying Internet Access to Households.* Starting with fixed Internet access, including fixed satellite and terrestrial fixed wireless service, competition, with whatever limitations may be inherent in these different technologies, appears to be widespread, at lower speeds for

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[449] *See, e.g.*, CenturyLink Comments at 8 ("[N]ot only is it clear that there are substantial costs maintaining the Title II rules, there is no evidence that there are offsetting benefits."); AT&T Econ. Decl. at 10 ("[T]here is a broad consensus that disclosure requirements and prohibitions on blocking and throttling should remain in place. The question here is whether Title II regulation should be imposed in addition to this baseline regulation and applied to an otherwise effectively competitive marketplace. We conclude that such incremental regulation serves only to constrain the competitive options open to firms while offering little or no incremental benefit.").

[450] This is different from forbidding certain behavior or a merger on antitrust grounds due to the likelihood of imminent, non-transitory price increases. As a result, our discussion of competition need not have any implications for conventional antitrust analysis.

[451] W. Kip Viscusi, Joseph E. Harrington, Jr., and John M. Vernon, Economics of Regulation and Antitrust, 4th Ed., 401-26 (2005); Lyons, *Net Neutrality and Nondiscrimination Norms*, 54 Arizona L.R. at 1036 ("[W]hile critics acknowledge that broadband providers may have economic incentives to block or degrade certain content or application providers, competitive pressure and antitrust law each help to police such misbehavior. *If a company has market power, antitrust doctrines—such as the law governing unilateral refusals to deal—protect consumers just as they do in every other area of the economy*. Therefore, although some government oversight is appropriate, critics question whether stringent Commission regulation benefits consumers above and beyond the protections they receive from general economic regulations.") (emphasis added); *see, e.g.*, D.W. Carlton & J.M. Perloff, Modern Industrial Organization at 682-735 (4th ed. 2005); D.E. Waldman & E.J. Jensen, Industrial Organization: Theory and Practice at 628-58 (4th ed. 2013).

[452] Our discussion of competitive effects, unless otherwise specified, does not rely on or define any antitrust market.

[453] Hon. Maureen K. Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L. J. 119, 122 (2016) (quoting *Standard Oil Co. v. FTC*, 340 U.S. 231, 249 (1951)) (Ohlhausen, *Antitrust Over Net Neutrality*); Preamble, Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

most households:[454]

Percent of U.S. population in developed census blocks in which residential fixed broadband ISPs reported deployment (as of December 31, 2016)[455]

	Number of providers			
Speed of at least:	**3+**	**2**	**1**	**0**
3 Mbps down and 0.768 Mbps up	97.0%	2.8%	0.1%	0.1%
10 Mbps down and 1 Mbps up	93.6%	5.7%	0.6%	0.1%
25 Mbps down and 3 Mbps up	43.9%	32.6%	19.1%	4.4%

125. However, because there are questions as to the extent fixed satellite and fixed terrestrial wireless Internet access service are broadly effective competitors for wireline Internet access service, we do not rely on this data, except to note that these services, where available, place some competitive constraints on wireline providers.[456] Focusing on competition among wireline service providers, and excluding DSL with speeds less than 3 Mbps down and 0.768 Mbps up, shows less, but still widespread, competition:

Percent of U.S. population in developed census blocks in which residential broadband wireline ISPs reported deployment (as of December 31, 2016)[457]

	Number of providers			
Speed of at least:	**3+**	**2**	**1**	**0**
3 Mbps down and 0.768 Mbps up	12.1%	67.2%	16.2%	4.4%
10 Mbps down and 1 Mbps up	9.0%	58.5%	26.3%	6.2%
25 Mbps down and 3 Mbps up	5.9%	45.2%	39.6%	9.2%

[454] We make no finding as to whether lower speed fixed Internet access services are in the same market as higher speed fixed Internet access services.

[455] Fixed Broadband Deployment Data from FCC Form 477, as of December 31, 2016 (V2), https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477; Federal Communications Commission, Staff Block Estimates, 2016 update, https://www.fcc.gov/reports-research/data/staff-block-estimates. A developed census block is a census block containing at least one household. An ISP that reports offering service in a census block may not offer service, or service at that speed, to all locations in the block.

[456] Fixed wireless and satellite subscriptions decisions suggest that consumers generally prefer fixed wireline services to these, even at lower speeds. For example, at bandwidths of 3 Mbps downstream and 0.768 Mbps upstream, satellite providers report deployment in 99.1 percent of developed census blocks, but only account for 1.7 percent of subscriptions, while terrestrial fixed wireless providers report deployment in 38.5 percent of developed census blocks, but only account for 0.9 percent of all subscriptions. FCC Form 477 Subscription Data, June 2016. In the 2016 Broadband Progress Report, the FCC defined advanced telecommunications services as 25 Mbps download and 3 Mbps upload for fixed services. https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2016-broadband-progress-report. Satellite providers only covered 50 percent of census blocks at these speeds, and fixed wireless providers, 18.5 percent.

[457] *See supra* note 455. While not reported, the percent of households in developed census blocks closely tracks the entries for the percent of population in developed census tracts. For example, approximately 79.7 percent of U.S. households are in a census block where at least two wireline suppliers offer speeds of at least 3 Mbps down and 0.768 Mbps up.

126. This table understates competition in several respects. First, even two competing wireline ISPs place competitive constraints on each other. ISPs' substantial sunk costs imply that competition between even two ISPs is likely to be relatively strong. Thus, to the extent market power exists, it is unlikely to significantly distort what would otherwise be efficient choices. A wireline ISP, anywhere it is active, necessarily has made substantial sunk investments.[458] Yet, the cost of adding another customer, or of carrying more traffic from the same customers, is relatively low.[459] Accordingly, a wireline ISP has strong incentives, even when facing a single competitor, to capture customers or induce greater use of its network, so long as its current prices materially exceed the marginal cost of such changes.[460] In addition, empirical research finds that the largest benefit from competition generally comes from the presence of a second provider, with added benefits of additional providers falling thereafter,[461] especially in the presence of large sunk costs.[462] Indeed, a wireline provider may be willing

[458] On sunk costs being important in (especially wireline) telecommunications, *see* Jonathan E. Nuechterlein & Philip J. Weiser, Digital Crossroads: Telecommunications Law and Policy in the Internet Age, at 8-10 (2nd ed. 2013) (Nuechterlein & Weiser); Jerry Hausman & J. Gregory Sidak, *Telecommunications Regulation: Current Approaches with the End in Sight*, in Economic Regulation and Its Reform: What Have We Learned? at 345, 353-54 (Nancy L. Rose, ed. 2005); Organization for Economic Co-operation and Development, *The Development of Fixed Broadband Networks*, at 11 (Jan. 8, 2015), http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2013)8/FINAL&docLanguage=En (OECD Fixed Broadband Networks) (noting the listed fixed costs are all sunk). Wireless ISPs similarly sink costs into backhaul, switches and marketing (Nuechterlein & Weiser at 8-9). While modern high-throughput satellites have some ability to be re-purposed, a significant share of the costs of developing, building, and launching a modern satellite is sunk. *See Second Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services*, Second Report, 23 FCC Rcd 15170, 15183, 15185, 15189 (2008) https://www.fcc.gov/reports-research/reports/satellite-competition-reports/satellite-competition-report-2nd-annual.

[459] Nuechterlein & Weiser at 9 ("[O]nce the network is up and running, the *marginal* cost of providing service to each additional customer is often tiny by comparison, particularly for wireline networks. Given these enormous fixed costs and negligible marginal costs, it is often cheaper per customer for a carrier to provide service to one million customers than to one thousand customers.").

[460] AT&T Econ. Decl. at 28-29.

[461] *Id*. at 28-29; Howard A. Shelanski, *Adjusting Regulation to Competition: Toward a New Model for U.S. Telecommunications Policy*, 24 Yale J. Reg. 55 (2007) (Shelanski); Mark Israel, Daniel Rubinfeld, and Glenn Woroch, Analysis of the Regressions and Other Data Relied Upon in the Business Data Services FNPRM And a Proposed Competitive Market Test at 39-40 (June 28, 2016), https://ecfsapi.fcc.gov/file/106281210703808/Second%20IRW%20White%20Paper%20(Public).pdf. Empirical evidence also suggests once a market reaches two or three firms, an additional entrant has little effect on per customer profits. *See* Timothy F. Bresnahan & Peter C. Reiss, *Entry and Competition in Concentrated Markets*, 99 J. Pol. Econ. 977 (1991). Some empirical research on railroads, another industry with high sunk costs, finds that the presence of a second railroad in a market is sufficient to produce a competitive outcome. *See* Paul A. Pautler, *Evidence on Mergers and Acquisitions*, 48 Antitrust Bulletin 200-01 (2003). Additionally, a recent study of the U.S. residential broadband market finds that entry of a fourth competitor in a zip code has almost no effect on price. *See generally* Mo Xiao & Peter F. Orazem, *Does the Fourth Entrant Make Any Difference? Entry and Competition in the Early U.S. Broadband Market*, 29 Int'l J. Indus. Org. 547 (2011).

[462] Other industries with large sunk costs have shown that "price declines with the addition of the first competitor, but drops by very little thereafter." Allan Collard-Wexler, *Demand Fluctuations in the Ready-Mix Concrete Industry*, 81 Econometrica 1003, 1008 at Figure 2 (2013). Nothing in this order should be construed as finding that these statements appropriately characterize the addition of the first fixed wireline competitor in a particular context, only that in general such an addition likely will have a material impact on moving prices toward competitive levels.

to cut prices to as low as the incremental cost of supplying a new customer.[463] Thus, in this industry, even two active suppliers in a location can be consistent with a noticeable degree of competition, and in any case, can be expected to produce more efficient outcomes than any regulated alternative.[464]

127. Second, competitive pressures often have spillover effects across a given corporation, meaning an ISP facing competition broadly, if not universally, will tend to treat customers that do not have a competitive choice as if they do. This is because acting badly in uncompetitive areas may be operationally expensive (i.e., requiring different equipment, different policies, different worker training, and different call centers to address differing circumstances) and reputationally expensive (e.g., even if behavior is confined to an uncompetitive market, customers in competitive markets may churn after learning about such behavior). Accordingly (and unsurprisingly), most ISPs actively try to minimize the discrepancies in their terms of service, network management practices, billing systems, and other policies—even if they offer different service tiers or pricing in different areas. Approximately 79 percent of U.S. households are found in census blocks that at least two wireline ISPs report serving, and approximately another 8 percent of households are in census blocks where the unique wireline ISP providing service in the census block faces competition from a rival in 90 percent of the blocks it serves.[465]

128. The Commission's prior findings on churn in the broadband marketplace do not dissuade us from concluding that wireline broadband ISPs often face competitive pressures. Although the Commission has previously found voluntary churn rates for broadband service to be quite low,[466] a view which some commenters echo,[467] substantial, quantified evidence in the record dissuades us from

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[463] The Commission previously stated, "the presence of facilities-based competition with significant sunk investment makes exclusionary pricing behavior costly and highly unlikely to succeed." *Pricing Flexibility Order*, 14 FCC Rcd at 14264, para. 80.

[464] *See, e.g.*, AT&T Comments at 29-30 ("[O]nly a very small number of competitors is needed to protect consumer interests in industry contexts like this one, where fixed and sunk costs are high and the incremental cost of serving incremental users is comparatively low. In those contexts, rivals have strong incentives to compete fiercely to gain and retain customers even as prices fall because, whenever they lose a customer, they save minimal costs but lose significant revenues."); AT&T Econ. Decl. at 28-29 ("Economics teaches that in markets such as broadband Internet access, the presence of two competitors is likely to result in effective competition. In particular, the presence of high sunk costs in this industry means that competition is likely to be intense, even with only two providers."). We do not claim that a second wireline provider results in textbook perfect competition, but rather, given ISP recovery of sunk investments becomes more difficult as competition increases, and the critical nature of allowing such recovery, market outcomes may well ensure approximately competitive rates of return.

[465] Such ISPs included the top ten ISPs when ranked by covered census blocks, and also when ranked by households in covered census blocks, except the ninth, Windstream. Fixed Broadband Deployment Data from FCC Form 477, as of December 31, 2016 (V2), https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477; Federal Communications Commission, Staff Block Estimates, 2016 update, https://www.fcc.gov/reports-research/data/staff-block-estimates. Our conclusions do not hinge on finding effective competition everywhere. *See, e.g.*, Letter from Angie Kronenberg, Chief Advocate and General Counsel, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 4 (filed Nov. 29, 2017); Letter from Angie Kronenberg, Chief Advocate and General Counsel, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 7-11 (filed Nov. 20, 2017) (INCOMPAS Nov. 20, 2017 *Ex Parte* Letter). We find that competition exists in various forms nearly everywhere and to the extent that effective competition is not universal, the costs of Title II regulation outweigh the benefits of our more light-touch approach.

[466] *Title II Order*, 30 FCC Rcd at 5631-32, para. 81; *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 15-149, Memorandum Opinion and Order, 31 FCC Rcd 6327, 6353-54, para. 58 (2016) (*Charter/TWC Order*).

[467] Internet Association Comments at 20 ("ISPs' gatekeeping power would be mitigated if consumers could easily switch providers, but the Commission has found that consumers face high switching costs as a result of activation

(continued….)

repeating that finding here.[468] Regardless, even if high churn rates make market power unlikely, low churn rates do not *per se* indicate market power. For example, they may reflect competitive actions taken by ISPs to attract customers to sign up for contracts, and to retain existing customers, such as discount and bonus offers. Moreover, actions such as these, and others, are indicative of competition. For example, ISPs engage in a significant degree of advertising, aiming to draw new subscribers and convince subscribers to other fixed ISPs to switch providers.[469] Similarly, ISPs employ "save desks" often taking

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fees, high upfront device installation fees, long-term contracts and early termination fees, and costs associated with equipment and services not working with a new broadband access service. In addition, bundled pricing and family discount plans often discourage consumers from switching."); INCOMPAS Comments at 33-34 ("Both financial and non-financial costs deter consumers from switching."); Engine Reply at 4; INCOMPAS Reply at 26-28 ("Lack of competition is compounded by high switching costs. . . . [S]witching providers first requires a service call to disconnect from the subscriber's current provider. That is often met with refusal to disconnect or *use of aggressive win-back tactics*. If that hurdle is surpassed, the next step requires the subscriber to return the current broadband provider's equipment to a location that is often far away from that subscriber's location. Then the subscriber must schedule a service visit to install the new service, which often requires someone to be in the location for a significant period of time. And once these steps conclude, the subscriber still faces uncertainty over the quality of service the new broadband provider will offer. Moreover, the fact that consumers tend to prefer buying bundles that contain both broadband access and video programming also increases the switching costs.").

[468] CenturyLink Folster Declaration at 3-4 ("Overall, according to Frost & Sullivan data, telco providers lost 1 point of market share during 2016 and have lost 3 points of share over the last three years, primarily at the expense of cable providers. This, in and of itself, is evidence that switching costs are low. If the switching costs for changing ISPs were high, we would not expect to see such a decline in market share over such a short period of time"); Technology Policy Institute (Leonard & Wallsten) Comments at 7 ("[T]he implication that switching costs render competition meaningless is inconsistent with the substantial sums on marketing and incentives to induce subscribers to remain and competitors' subscribers to switch service. . . . Even if only a small percentage of subscribers are willing to incur switching costs, providers will be constrained from the types of anticompetitive activities about which the Commission is concerned."); Free State Foundation Comments at 28-30 ("the *Title II Order* relied on a false narrative that consumer "switching costs" are too high, creating monopoly power even when multiple broadband ISPs offer access in a given area."); Verizon Reply Econ. Decl. at 15.

[469] *See*, *e.g.*, Mike Dano, *New Street: AT&T's fiber build-out cut into Charter and Comcast's growth—but that won't last*, FierceCable.com (Nov. 2, 2017), http://www.fiercecable.com/cable/new-street-at-t-s-fiber-buildout-cut-into-charter-and-comcast-s-growth-but-won-t-last (reporting analyst view that AT&T has claimed market share from cable through fiber deployment and steep discounts, and questioning whether such discounts can be sustained, indicating how aggressive AT&T has been as a competitor); Chris Mills, *$500 off the iPhone X is still $500 off, even from Comcast*, BGR.com (Oct. 25, 2017) http://bgr.com/2017/10/25/iphone-x-deals-xfinity-mobile-vs-verizon-500-off/) (discussing Comcast's offer of $500 to new customers signing a fixed Internet access contract with mobile service on an iPhone); INCOMPAS Reply at 12 (listing "aggressive win-back techniques" as one method ISPs employ to prevent churn); Letter from Jonathan E. Nuechterlein, Counsel to AT&T, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 19 (filed Oct. 31, 2017) (providers commonly route disconnection requests to save desks that make special efforts to retain the customer). *See also* Free State Foundation Comments at 29 ("[T]he [Title II] Order [did not] take stock of the ferocity with which the ISPs fight for customers through various forms of marketing designed to induce switching. Data regarding the substitutability of mobile broadband services for fixed broadband services also demonstrates that the order significantly overstated the barriers to consumer choice imposed by switching costs."); AT&T Econ. Decl. at 25-26 ("There is also intense rivalry between telcos, cable companies and other entrants with respect to fixed Internet services. Indicators of this rivalry include, among others . . . Advertising expenditures: Fixed broadband Internet access providers spend heavily on advertising. Through this advertising, providers fight to differentiate themselves from their competitors by touting the speeds they are able to offer as well as their customer satisfaction ratings. As a matter of economics, it would not be rational to spend this much on advertisements focused on differentiating offerings from competitors if there were not strong competition among providers for consumers."); Comcast Comments, Appx. C at 15-16 ("Surveyed results filed with the FCC show that one-third of all subscribers have changed their provider in the last two years and almost half in the last four years. . . . The heavy national and regional advertising that BIAS providers (both wireless and wireline) do would make little sense otherwise."); Verizon Econ. Decl. at 28-29 ("The risk of losing customers presents a substantial economic threat to providers' consumer wireline business because the net lifetime value of wireline

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aggressive actions to convince subscribers seeking service cancellation to continue to subscribe, often at a discounted price.[470] Thus, the record indicates material competition for customers regardless of churn levels.

129. *There is even greater competition in mobile wireless*. Mobile wireless ISPs face competition in most markets, with widespread and ever extending head-to-head competition between four major carriers. As of January 2017, at least four wireless broadband service providers covered approximately 92 percent of the U.S. population with 3G technology or better.[471] Even in rural areas at least four service providers covered approximately 69 percent of the population.[472]

130. Both the *Title II Order* and its supporters in the current proceeding fail to properly account for the pressure mobile Internet access exerts on fixed, including fixed wireline, Internet access supply.[473] While we recognize that fixed and mobile Internet access have different characteristics and

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subscribers is substantial. And, bundling with video, wireline voice, and wireless voice services increases the potential cost from the loss of subscribers. Because of the significant expected life-time value of wireline subscribers, retaining customers (*i.e.*, reducing churn) is an important part of the competitive strategy for Verizon and other broadband providers.").

[470] *See* Consumer Reports, *Haggling for a lower telecom bill really works, says one CR editor* (May 17, 2012) https://www.consumerreports.org/cro/news/2012/05/haggling-for-a-lower-telecom-bill-really-works-says-one-cr-editor/index.htm; N. Safo, Marketplace, *Want to save money? Call your cable company*, (Oct. 9, 2014) https://www.marketplace.org/2014/10/09/business/want-save-money-call-your-cable-company; INCOMPAS Reply at 26-28 (Attempts to switch providers are "often met with . . . use of aggressive win-back tactics"); AT&T Econ. Decl. at 26-27 ("[T]he fact that providers actively compete to steal customers from one another demonstrates that they have available capacity with which to serve those customers. The ability to switch fixed access providers is demonstrated by the fact that churn is an important strategic focus in the broadband Internet access industry. The focus on reducing churn is evident in providers' focus on "save desk" efforts. Customers thinking about leaving their Internet service provider must call to disconnect service, and they are then referred to save desks that will offer substantial discounts or other inducements to persuade the customer to stay. This is competition in action; the ability to switch leads firms to offer substantial inducements to stay, thus benefiting even those customers who ultimately choose not to switch. . . . Finally, as with wireless, search costs are very low in this industry, as there is no shortage of comparative advertising, including direct mailing and circulars."). On the substantial discounts made in save offers, *see* CenturyLink Folster Declaration at 3-4 ("*In the past customers were required to purchase their modem from their ISP*. Today, customers may purchase their modem from either their ISP or a third party provided the MODEM supports the technology on which the customer is provisioned. . . . *ISP promotional service offerings often include features that reduce switching costs, such as removal of activation fees, elimination of installation fees and elimination of early termination fees*."); Comcast Comments Appendix C at 15-16 ("Although there is certainly some customer inertia, the basic wiring and even the equipment at the customer's premise can usually be repurposed to any BIAS provider. If both Spectrum and Verizon FiOS offer service to a particular household, then switching between services is a simple matter.").

[471] These coverage estimates represent deployment of mobile networks and do not indicate the extent to which providers offer service to residents in the covered areas. *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Twentieth Report, 32 FCC Rcd 8968, 8973, para. 7 (2017) (*20th Mobile Competition Report*); *see also 20th Mobile Wireless Competition Report Web Appx. III: Elements of Inter-Firm Rivalry*, https://www.fcc.gov/20th-cmrs-report-web-appendices.

[472] *Id*.

[473] *See* Public Knowledge Comments at 79 (stating that "wireless and wireline broadband are distinct product markets" and that "[i]n this case the data show that consumers who can afford both fixed and mobile broadband tend to buy both"); INCOMPAS Reply at 27-28 (stating that Dr. Evans finds that "[m]ost households that have a [fixed broadband provider subscription] . . . have one or more household members that have a [] mobile subscription with a broadband data plan"); INCOMPAS Nov. 20, 2017 *Ex Parte* Letter, October 2017 White Paper Attachment at 3-4 ("State-of-the-art wired and wireless technologies have widely different capacities and limitations"); Letter from Michael Calabrese, Director, Wireless Future Project, OTI New America, to Marlene H. Dortch, Secretary, FCC,

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capabilities, for example, typically trading off speed and data caps limits against mobility, increasing numbers of Internet access subscribers are relying on mobile services only. In 2015, one in five households used only mobile Internet access service to go online at home (up from one in ten in 2013), and close to 15 percent of households with incomes in excess of $100,000 (up from six percent in 2013), exclusively used mobile Internet access service at home.[474] With the advent of 5G technologies promising sharply increased mobile speeds in the near future, the pressure mobile exerts in the broadband market place will become even more significant.[475]

131. *ISP Competition in Supplying Edge Providers Access to End Users.* On the other side of the market, to the extent ISPs have market power in supplying edge providers, ISP prices to edge

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WC Docket 17-108 at 2 (filed Dec. 7, 2017) (arguing that mobile is not a substitute or a substantial competitive threat to high-capacity fixed broadband Internet access service).

[474] Giulia McHenry, *Evolving Technologies Change the Nature of Internet Use* (Apr. 19, 2016), https://www.ntia.doc.gov/blog/2016/evolving-technologies-change-nature-internet-use, Tables 1 and 2. New America/OTI notes that this study states that low-income Americans are far more likely to become mobile dependent than consumers who have higher levels of income. However, as noted above, this same study by the U.S. Census Bureau, which includes data collected from nearly 53,000 households, also found a significant increase in mobile-only use by higher-income households, and that the growth in the proportion of high-income households that exclusively use mobile Internet service at home is accelerating. *Id.*; *see also* Letter from Michael Calabrese, Director, Wireless Future Project, OTI New America, to Marlene H. Dortch, Secretary, FCC, WC Docket 17-108 at 2-3 (filed Dec. 7, 2017). Several commenters discussed their own views on the extent to which mobile wireless might exert competitive pressure in some instances. *See* Free State Foundation Comments at 24-25 ("An important aspect of the broadband market's dynamism, erroneously overlooked by the *Title II Order*, is cross-platform or intermodal competition between multiple broadband technologies. Broadband ISPs offering service across cable, fiber, mobile, and satellite platforms compete with each other for consumers or even for proportions of multi-screening consumer data usage. Around the time of the order's adoption, data showed that 10% of Americans had a mobile broadband connection but did not have a fixed broadband connection. Since then, evidence from the National Telecommunications and Information Administration finds that consumers across all income levels are substituting mobile broadband for fixed broadband. For example, 29% of low-income consumers, 18% of middle-income consumers, and 15% of high-income consumers are mobile-only broadband users."); AT&T Comments at 30-31 ("According to a Pew Research study, "a growing share of Americans now use smartphones as their primary means of online access at home. Today just over one-in-ten American adults are 'smartphone-only' internet users—meaning they own a smartphone, but do not have traditional home broadband service." That trend is likely to continue with the roll-out of affordable mobile plans with unlimited data (see above) and the ubiquitous availability of public Wi-Fi hotspots."); AT&T Econ. Decl. at 29-34 ("Convergence between wireless and wireline services is further increasing the number of options available to customers (who might previously have looked only at wireless or only at wireline options), and thus further increasing the intensity of competition. . . . Moreover, when comparing wireless and wireline speeds, it is important to note that while a wireline connection may be shared between multiple users, wireless connections are typically measured on a per device basis, so two smart phone users in a household may each be taking advantage of 25 Mbps connections on their phones, while a landline connection in the home may be 25 Mbps and be shared between the two."). Competition constrains a firm's prices if the firm is prevented from raising price to levels that absent switching to competitors, would increase the firm's profits. The extent of the switching need not be large. For example, with constant unit costs, a 5% price increase would be prevented if that would lead to slightly less than 5% of the firm's customers to either stop consuming altogether or to switch to a rival. Suppliers of Internet access service are likely to be more sensitive to customer loss than the case with constant marginal cost, since in general the marginal costs of Internet access service fall as subscriber numbers increase, meaning, in addition to the revenues lost due to leaving customers, profits are also eroded due to a rise in the average cost of supplying those who remain. *See supra* note 459.

[475] Ericsson Comments at 3; Verizon Econ. Decl. at 28 ("[T]he promises of upcoming 5G technology are likely to increase the competitive pressure from wireless services on wireline broadband over time."); AT&T Comments at 31 ("The distinction between fixed and mobile will evaporate further with the deployment of ultra-high-capacity 5G technologies, which will feature a proliferation of very small cell sites linked by dense fiber backhaul networks."); AT&T Econ. Decl. at 34 ("The evidence presented above makes clear that wireless-wireline convergence is occurring today. And that process will only accelerate as 5G networks are deployed.").

providers could distort economic efficiency (a potential harm that is distinct from anticompetitive behavior or because of a failure to internalize a relevant externality).[476] Loosely speaking, such power over an edge provider can arise under one of two conditions: the ISP has conventional market power over the edge provider because it controls a substantial share of (perhaps a specific subset of) end-user subscribers that are of interest to the edge provider, or that edge provider's customers only subscribe to one ISP (a practice known as single homing).

132. Narrowly focusing on fixed ISPs, Comcast, the largest wireline ISP, has approximately one quarter of all residential subscribers in the US,[477] while at speeds of at least 25 Mbps down and 3 Mbps up, the Herfindahl-Hirschman Index measure of concentration for the supply of access to residential fixed broadband Internet access service subscribers meets the Department of Justice (DOJ) designation of "moderately concentrated":[478]

HHI of served residential fixed broadband Internet access service subscribers

(as of December 31, 2016)[479]

Speed	HHI
3 Mbps down and 0.768 Mbps up	1,473
10 Mbps down and 1 Mbps up	1,743
25 Mbps down and 3 Mbps up	2,208

133. Large shares of end-user subscribers, and/or market concentration, however, do not seem a likely source or indicator of conventional market power capable of significantly distorting efficient choices, with the possible exception of edge providers whose services require characteristics currently only available on high-speed fixed networks (such as video, which requires both high speeds and substantial monthly data allowances, and gaming and certain other applications, which require high speeds and low latency). Given Comcast's market share, even a fledgling edge provider that can only be viable in the long term if it offers service to three quarters of broadband subscribers, may not depend on gaining access to any single provider. And calculating market shares for wireline ISPs based on their end users may be too simplistic if edge providers can reach end users at locations other than their homes, such as at work, or through a mobile ISP.[480] In addition, ISPs have good incentives to encourage new entrants

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[476] Shane Greenstein et al., *Net neutrality: A fast lane to understanding the trade-offs*, 30 J. Econ. Persp. 127, 135, 137-139 (2016), http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.30.2.127 (Greenstein et al.).

[477] Comcast reported 23.4 million "[h]igh-speed Internet residential customers" as of June 30, 2017. *See* Comcast Corp. Quarterly Report (Form 10-Q) (Jul. 27, 2017), http://www.cmcsa.com/secfiling.cfm?filingID=1166691-17-22. Comcast's market share is approximately 26 percent based on the 2015 Census Broadband data (23.4/90.7). This estimate is not sensitive to definitions of broadband. As of December 2016, there were 102 million fixed connections with download speeds of at least 3 Mbps, lowering Comcast's share to approximately 23 percent, and 106 million with fixed connections of at least 200 Kbps in either direction, lowering Comcast's share to approximately 22 percent (FCC Form 477 Subscription Data, December 2016).

[478] The DOJ considers a market with an HHI value of between 1,500 and 2,500 to be moderately concentrated. *See* Department of Justice, Antitrust Division, *Herfindahl-Hirschman Index,* https://www.justice.gov/atr/herfindahl-hirschman-index.

[479] FCC Form 477 Subscription Data (December 2016).

[480] *See* Oracle Comments at 2-3 ("[T]he *Title II Order* inappropriately ascribed significant gatekeeper power to the "high" cost of switching home broadband providers. But, because more than two-thirds of global computing power is mobile, consumers' devices switch among home, work, and retail networks throughout the day, to say nothing of internet access through work, school, and library computers and networks."); AT&T Comments at 30 ("The fact that a typical consumer uses multiple networks sharply disciplines the ability of any given network to engage in conduct

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that bring value to end users, both because such new entrants directly increase the value of the platform's service, and because they place competitive pressure on other edge providers, forcing lower prices, again increasing the value of the platform's service. Moreover, those smaller edge providers may benefit from tiered pricing, such as paid prioritization, as a means of gaining entry.[481] In fact, some edge providers might consider reaching end users on mobile devices to be roughly as valuable as, or more valuable than, reaching end users on wireline networks.

134. In addition, larger edge providers, such as Amazon, Facebook, Google and Microsoft, likely have significant advantages that would reduce the prospect of inefficient outcomes due to ISP market power.[482] For example, the market capitalization of the smallest of these five companies, Amazon, is more than twice that of the largest ISP, Comcast, and the market capitalization of Google alone is greater than every cable company in America combined.[483] Action by these larger edge providers preventing or reducing the use of ISP market power could spill over to smaller edge providers, and in any case, is unlikely to anticompetitively harm them given existing antitrust protections (since arrangements between an ISP and a large established edge provider must be consistent with antitrust law). Consequently, any market power even the largest ISPs have over access to end users is limited in the extent it can distort edge provider decisions (or those of their end users).

135. Despite the preceding analysis, a second claim is made that relies solely on the second factor, single homing: "regardless of the competition in the local market for broadband Internet access, once a consumer chooses a broadband provider, that provider has a monopoly on access to the subscriber . . . Once the broadband provider is the sole provider of access to an end user, this can influence that network's interactions with edge providers, end users, and others."[484] Commenters have

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that threatens consumer welfare. . . that market dynamic will cause consumers to notice, complain, and switch if any ISP allows its best-effort broadband platform to diminish in quality or engages in anticompetitive treatment of edge providers."); Verizon Econ. Decl. at 36-37 ("[C]onsumers generally do multi-home by accessing online content and services on multiple platforms, such as one or more wireless broadband services, a wireline broadband service at home, a wireline broadband service at work, and Wi-Fi networks at numerous locations (*e.g.*, Starbucks, libraries, airports). Subscriber multi-homing also is at odds with the claim that, once a subscriber chooses a broadband Internet access provider, that provider is a "gatekeeper" over access to that subscriber."). We reject claims that we should entirely neglect this possibility based on assertions that users might be limited in their ability or willingness to switch between different options for broadband Internet access in unspecified circumstances and for unspecified reasons. *See* AARP Reply at 35-37 ("While it is certain that many consumers utilize different sources of broadband Internet access, it is not reasonable to assume that consumers can easily switch between these options, or would want to.").

[481] If the entrant offers a more valuable service than an incumbent, then this would be a profitable strategy, and while it is common to claim new entrants would not have the deep pockets necessary to implement such an entry strategy, new economy startups have demonstrated that capital markets are willing to provide funds for potentially profitable ideas, despite high failure rates, presumably because of the large potential gains when an entrant is successful. Examples of successful new entrants that started behind dominant incumbents, include Google (against established search engines such as Yahoo, and the map provider, MapQuest), Amazon (against traditional bricks and mortar storefronts), and Facebook (against MySpace).

[482] Chris Smith, *Netflix's 'meh' on net neutrality is exactly why we need strong rules, not empty promises*, (Jun. 1, 2017), http://bgr.com/2017/06/01/netflixs-net-neutrality-comments/ ("'It's not our primary battle at this point,' Hastings said on Wednesday about net neutrality during an interview at Recode's Code Conference. 'We think net neutrality is incredibly important,' Netflix said, but 'not narrowly important to us because we're big enough to get the deals we want.'").

[483] On October 4, 2017, as estimated by share prices reported by Marketwatch.com, Apple had a market capitalization of $797.92 billion, Google of $667.83 billion, Microsoft of $571.97 billion, Facebook of $493.28 billion, and Amazon of $459.77 billion. Comcast's valuation was substantially less than $200 billion.

[484] *Title II Order*, 30 FCC Rcd at 5629-30, para. 80. We discuss in paragraphs 117-119 claims that an ISP could act "in ways that may harm the open Internet, such as preferring their own or affiliated content, demanding fees from

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echoed this "terminating access monopoly" concern.[485] The *Title II Order* contended that these forces applied to all ISPs, whether large or small, fixed or mobile, fiber or satellite, and "therefore [it] need not consider whether market concentration gives broadband providers the ability to raise prices."[486]

136. As a blanket statement, this position is not credible. It is unlikely that any ISP, except the very largest, could exercise substantial market power in negotiations with Google or Netflix, but almost certainly no small wireless ISP, or a larger but still small rural cable company or incumbent LEC, could do so.[487] Further, from the perspective of many edge providers, end users do not single home, but subscribe to more than one platform (e.g., one fixed and one mobile) capable of granting the end user effective access to the edge provider's content (i.e., they multi-home). As the *Title II Order* acknowledges, to the extent multihoming occurs in the use of an application, there is no terminating monopoly.[488]

137. Moreover, to the extent a terminating monopoly exists for some edge providers, and it is not offset or more than offset by significant advantages, there is the question of the extent to which the resulting prices are economically inefficient. A terminating (access) monopoly arises when customers on one side of the market, roughly speaking end users in our case, single home with little prospect of switching to another platform in the short run, while customers on the other side, roughly speaking edge providers in our case, find it worthwhile to multi-home. The terminating monopoly differs from conventional market power because it can arise despite effective competition between platforms. In that case, platforms must vigorously compete for single-homing end users, but have less need to compete for edge providers, who subscribe to all platforms.[489] This means each ISP faces strong pressures to cut prices to end users, but does not face similar pressures in pricing to edge providers.[490] However, ISPs are

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edge providers, or placing technical barriers to reaching end users. Without multiple, substitutable paths to the consumer, and the ability to select the most cost-effective route, edge providers will be subject to the broadband provider's gatekeeper position."

[485] *See* Ad Hoc Comments at 10-12; Public Knowledge Comments at 74-77; Fiber Broadband Association Comments at 4; Vimeo Comments at 23; Internet Association Comments at 21; INCOMPAS Comments at 34-35; INCOMPAS Comments at 38-41); Public Knowledge Comments at 74-77. This argument is often conflated with arguments about retail competition more generally, but it is a distinct concept that has been endorsed by the FCC and the courts in various contexts.

The focus on edge providers' bargaining position vis-à-vis ISPs is warranted in light of the fact that any gatekeeper power applies to edge providers, not end users. *See* USTelecom Comments at 19-22 ("The theory of the gatekeeper or terminating access monopoly is *not* that a provider has market power with respect to the services it offers to its retail customers, but rather that it has market power with respect to its interactions with third parties. With respect to customers or end users, therefore, the gatekeeper theory is inapt, and the proper question that the Commission should ask is whether broadband providers have market power in properly defined consumer markets.") (internal quotations omitted).

[486] *Title II Order*, 30 FCC Rcd at 5633, para. 84.

[487] *See, e.g.*, USTelecom Comments at 22 ("[T]he idea that every ISP has market power because it is a 'gatekeeper' to its subscribers is clearly rebutted by the position of small broadband providers. The suggestion that ISPs with only tens or even hundreds of thousands of end-users could have market power over an edge provider like Netflix is contrary to both common sense and the experience of those ISPs. Indeed, Netflix has set minimum size requirements for ISPs to enter into certain kinds of mutually beneficial arrangements.").

[488] *See Title II Order*, 30 FCC Rcd at 5630, para. 80 ("The ability of broadband providers to exploit this gatekeeper role could be mitigated if consumers multi-homed (i.e., bought broadband service from multiple networks).").

[489] Such an arrangement is mutually reinforcing. Single homers can reach all the multi-homers despite only subscribing to one platform. Multi-homers must subscribe to all platforms to reach all single homers.

[490] *See, e.g.*, Mark Armstrong, *Competition in Two-Sided Markets*, 37 RAND J. Econ. 668, 669-70 (2006) (Armstrong) (Describing cases when "one group single-homes while the other multi-homes" as a "competitive
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unlikely to earn supranormal profits, so any markups earned from edge providers in excess of total costs are generally passed through to end users.[491] While such an outcome generally will not be efficient, there is no general presumption about the extent of that inefficiency, or even if prices to the multi-homers ideally should be lower than would emerge in the absence of a termination monopoly.[492] In the present case, there is no substantive evidence in the record that demonstrates how different efficient prices to edge providers would be from the prices that would emerge without rules banning paid prioritization or prohibiting ISPs from charging providers at all.

138. Lastly, we find the record presents no compelling evidence that any inefficiencies, to the extent they exist, justify Title II regulation. There is no empirical evidence that the likely effects from conventional market power or the terminating monopoly, to the extent they exist, are likely to be significant, let alone outweigh the harmful effects of Title II regulation. For all these reasons, we find no case for supporting Title II regulation of ISP prices to edge providers.[493]

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bottlenecks": "to interact with an agent on the single-homing side, the multi-homing side has no choice but to deal with that agent's chosen platform. Thus, platforms have monopoly power over providing access to their single homing customers for the multi-homing side."); *id.* at 669 (However, "This tendency toward high prices for the multi-homing side is tempered when the single-homing side benefits from having many agents from the other side on their platform.").

[491] *See, e.g.*, Armstrong at 677-80; Rysman at 132.

[492] *See* Greenstein et al. at 146 ("There are . . . a number of open research questions . . . because the situation involves multiple participants in complementary economic relationships where they share the costs and benefits of actions, and users benefit from improvement and investment."); White & Weyl at i ("competition's impact on efficiency depends crucially on heterogeneity in users' evaluations for network effects"); *id.* at 4-5, 26, 29. However, they "suggest the conditions necessary for competition to be. . . welfare-diminishing are quite strong." *Id.* at 5; *see also* Joseph Farrell, *Efficiency and Competition between Payment Instruments*, 5 Rev. Network Econ. 26, 26-27 (2006) (Farrell) (discussing the context of credit cards).

[493] We note that the terminating monopoly problem in voice telecommunications is one created by common-carriage regulation, not one solved by it. Specifically, carriers must interconnect with each other and originating carriers must pay terminating carriers rates set by the terminating carrier in their tariff (with some government oversight). That leads to a "bargaining" situation where one party sets the terms of the deal and the other must accept it or complain to the regulator—in other words, the regulations prohibit a normal free market from developing. Such regulatory requirements do not exist in broadband. *See* AT&T Comments at 32-33 & n.62 ("As the Commission ultimately acknowledged, however, this '[]LEC access charge' problem arose not from a market failure, but from the application of Title II regulation itself—specifically, from tariffing, interconnection, and geographic-averaging requirements. . . . The broadband market contains no such regulatory distortions and presents no 'terminating access monopoly.' . . . No broadband ISP can 'tariff' the 'service' of providing access to its end users, and no backbone or other third-party network has any regulatory obligation to interconnect with any ISP, let alone pay whatever rates the ISP might wish to charge for access to its users."); AT&T Econ. Decl. at 35 ("'terminating access' problems are not market failures to be ameliorated by regulatory intervention, but are actually market distortions *created by* regulation, most notably in the context of landline voice long-distance services. In that context, [IXCs] required access to [LEC] networks to terminate calls. LECs could charge high fees for that access and the IXCs were required to pay those fees. The IXCs could not charge their own customers different fees based on the LEC fees, and the LEC customers had no direct relationship with the IXCs. Because the end users did not have to bear the higher costs, they had no reason to switch to an alternative terminating access provider, which arguably gave their local provider market power in the provision of terminating access service. In contrast, if an Internet Service Provider attempted to block or throttle specific content, its end user customers would be directly affected by, and could directly observe, that behavior, and they would have the incentive and ability to react to that conduct. The same is true if an Internet Service Provider attempted to impose discriminatory charges on particular content providers[].").

Furthermore, two additional aspects unique to the traditional telephone market created those problems: (1) voice call originators, who are (with the exception of reverse charge calls) the analogue to edge providers in voice-telecommunications, do not directly negotiate with the carrier that sets call termination charges, but rather only have a relationship with the call originating carrier. However, the originating carrier gains from high call termination

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139. *Externalities Associated with General-Purpose Technologies Are Not a Convincing Rationale for Title II Regulation*. Some commenters make somewhat inchoate arguments that ISPs should not be permitted to treat different edge providers' content differently or charge more than a zero price because the Internet is a "general purpose technology" and/or the services of some edge providers create positive externalities that the edge providers cannot appropriate.[494] Hogendorn may propose the most coherent version of this argument: because the Internet is a general purpose technology (GPT), when an ISP sets a price to any edge provider, the ISP does not take into account the positive externalities generated by the broad (e.g., GPT) use of those edge providers' applications (just as edge providers do not).[495] Unfortunately, these commentators fail to define or substantiate the extent of the problem, if any; fail to demonstrate how much the situation would be improved by requiring nondiscriminatory treatment of all edge providers; do not explain why, if nondiscriminatory treatment is required, it should be at a zero price; do not assess whether the costs of such an intervention would be offset by the benefits;[496] and do not consider whether other less regulatory measures would be more appropriate.[497] Instead, these commenters seek to apply Title II regulation to all ISPs, and consider the solution to their concern that certain services or the Internet itself might be inefficiently undersupplied (for reasons well beyond the control of ISPs) to be a ban on ISPs only (and not other input suppliers of edge providers) charging edge providers *any* price. We reject this approach as unreasonable and unreasoned.

3. Pre-Existing Consumer Protection and Competition Laws Protect the Openness of the Internet

140. In the unlikely event that ISPs engage in conduct that harms Internet openness, despite

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charges when it terminates calls on its own network, so faces a conflict of interest when negotiating call termination charges on behalf of its subscribers. In fact, such a regime provides carriers with a mechanism for using the input price of call termination to collude on retail prices. *See, e.g.*, Michael Carter & Julian Wright, *Interconnection in Network Industries*, 14 Rev. Indus. Econ. 1-25 (1999); Joshua S. Gans & Stephen P. King, *Using 'bill and keep' interconnect Arrangements to Soften Network Competition*, 71 Econ. Letters 413-420 (2001); Jean-Jacques Laffont, Patrick Rey & Jean Tirole, *Network Competition: I. Overview and Nondiscriminatory Pricing*, 29 RAND J. Econ 1-37 (1998); Verizon Econ. Decl. at 33-34. In contrast, edge providers can directly connect with an ISP to reach that ISP's end users, without seeking the ISP's help to terminate on another ISP's network (unlike in voice telecommunications), or can use intermediaries such as Cogent and Akamai, who largely do not terminate traffic to their own end users, so do not face the conflict that voice carriers face when negotiating termination charges. (2) Even if call originating carriers had good incentives to negotiate reasonable termination charges, regulation that requires interconnection, but does not appropriately regulate termination charges, seriously weakens their ability to obtain reasonable rates. Threatening to not interconnect is not an available negotiating ploy in telecommunications, but is one available to edge providers, especially larger ones, in negotiating with ISPs. Moreover, historically voice telephony consisted of geographic monopolies, making it pointless for one carrier to threaten another with disconnection since the end users of the disconnected carrier could not switch to a different carrier. Again, this is not true for Internet access.

[494] *See, e.g.*, Lauren Comments ("The internet is a general purpose technology (examples of GPTs are the wheel and electricity). And you don't mess with a general purpose technology"); Lena Antin Comments (citing Tim Wu in support of the proposition that an ISP's interference with VPN service would lead to a "loss of employee productivity nationwide"); Ryan Hogard Comments ("The open web environment has produced positive externalities and growth that have allowed the technology industry to become what it is today, and will continue to serve as a breeding ground only if it is preserved").

[495] *See, e.g.*, Nicolas Economides Comments at 3 (citing Christiaan Hogendorn, *Spillovers and Network Neutrality*, in Regulation and the Performance of Communication and Information Networks (Gerald Faulhaber, Gary Madden, and Jeffrey Petchey, eds.) (2012)).

[496] For example, ISPs are one of many input suppliers to edge providers, so taxing only ISPs would create distortions in edge provider provision which could offset any (undemonstrated) benefits such tax would bring.

[497] These problems are more acute if only specific (as yet unidentified) edge providers generate positive externalities in supply.

the paucity of evidence of such incidents, we find that utility-style regulation is unnecessary to address such conduct. Other legal regimes—particularly antitrust law and the FTC's authority under Section 5 of the FTC Act to prohibit unfair and deceptive practices—provide protection for consumers. These long-established and well-understood antitrust and consumer protection laws are well-suited to addressing any openness concerns, because they apply to the whole of the Internet ecosystem, including edge providers, thereby avoiding tilting the playing field against ISPs and causing economic distortions by regulating only one side of business transactions on the Internet.[498]

141. *Consumer Protection*. The FTC has broad authority to protect consumers from "unfair or deceptive acts or practices."[499] As the nation's premier consumer protection agency, the FTC has exercised its authority, which arises from Section 5 of the FTC Act, to protect consumers in all sectors of the economy.[500] The FTC has used its Section 5 authority to enjoin some of the practices at issue in this proceeding, such as throttling.[501] The FTC is prohibited under the FTC Act from regulating common carriers.[502] As a result, the Commission's classification of broadband Internet access service as a common carriage telecommunications service stripped the FTC of its authority over ISPs. Therefore, as discussed in greater detail below,[503] the return to Title I will increase the FTC's effectiveness in protecting consumers.[504] Today's reclassification of broadband Internet access service restores the FTC's authority to enforce any commitments made by ISPs regarding their network management practices that are included in their advertising or terms and conditions, as the FTC did so successfully in *FTC v. TracFone*.[505] The FTC's unfair-and-deceptive-practices authority "prohibits companies from selling

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[498] *See* Oracle May 5, 2017 *Ex Parte* Letter at 2; Free State Foundation Comments at 45; Cox Comments at 24 ("[T]he FTC would be able to prevent unfair or deceptive practices not only by BIAS providers, but by edge providers, backbone providers, and content delivery networks, thus helping ensure a level playing field, regardless of the size of the participant or the role it plays.").

[499] 15 U.S.C. § 45(a)(1).

[500] *See* Free State Foundation Comments at 39-43; Acting Chairman Ohlhausen Comments at 10-11.

[501] *See* Acting Chairman Ohlhausen Comments at 10-11 ("The practices that concern advocates of net neutrality regulation involve consumer protection issues. For example, much of the concern about Comcast's alleged treatment of certain BitTorrent streams was that it was not apparent to consumers, and therefore Comcast allegedly deceived consumers about the service they purchased."). In the recent *FTC v. TracFone* case, the FTC sued TracFone, a reseller of mobile broadband Internet access services, for making false claims in its advertising and terms and conditions about unlimited data. The FTC alleged that, in practice, TracFone throttled customers who used 1-3 GB of data (reducing speeds by 60-90 percent), and cut off services for customers who used about 4-5 GB a month. *FTC v. TracFone Wireless, Inc.*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015), https://www.ftc.gov/enforcement/cases-proceedings/132-3176/straight-talk-wireless-tracfone-wireless-inc; Complaint paras. 37, 40, *FTC v. TracFone*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015). Because TracFone's data service was sold as pre-paid by the month, customers who wanted to use more unthrottled data had to purchase an additional month of service. The FTC alleged that TracFone's practices were not a "response to real-time network congestion," but motivated by the opportunity for increased revenue. *Id.* at para. 48. TracFone agreed to pay $40 million and stipulated to a permanent injunction, which directed it to clearly disclose its network management practices. Stipulated Order for Permanent Injunction and Monetary Settlement, *FTC v. TracFone*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015).

[502] *See* 15 U.S.C. § 45(a)(2) (exempting from Section 5 "common carriers subject to the Acts to regulate commerce").

[503] *See infra* Part III.E.3.

[504] *See* 15 U.S.C. § 45(a)(2) (exempting from Section 5 "common carriers subject to the Acts to regulate commerce"); *infra* Part III.E.3.

[505] *See* Free State Foundation Comments at 42 ("There is industry near-consensus that end user[s] . . . should not be subject to blocking, substantial degrading, throttling, or unreasonable discrimination by broadband ISPs. This consensus is widely reflected in the service terms that broadband ISPs furnish to their end user subscribers. With the

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consumers one product or service but providing them something different," which makes voluntary commitments enforceable.[506] The FTC also requires the "disclos[ur]e [of] material information if not disclosing it would mislead the consumer," so if an ISP "failed to disclose blocking, throttling, or other practices that would matter to a reasonable consumer, the FTC's deception authority would apply."[507] Today's reclassification also restores the FTC's authority to take enforcement action against unfair acts or practices. An unfair act or practice is one that creates substantial consumer harm, is not outweighed by countervailing benefits to consumers, and that consumers could not reasonably have avoided.[508] A unilateral change in a material term of a contract can be an unfair practice.[509] The FTC's 2007 Report on Broadband Industry Practices raises the possibility that an ISP that starts treating traffic from different edge providers differently without notifying consumers and obtaining their consent may be engaging in a practice that would be considered unfair under the FTC Act.[510]

142. Many of the largest ISPs have committed in this proceeding not to block or throttle legal content.[511] These commitments can be enforced by the FTC under Section 5, protecting consumers

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FTC's jurisdiction restored, alleged breaches [of] no-blocking, no-substantial degrading, no-throttling and other terms of service by ISPs could be investigated by the FTC and made the subject of enforcement actions."); Cox Comments at 23; NCTA Comments at 54 ("NCTA's members, along with other ISPs, could agree to abide by a code of conduct embodying these principles, and/or could include these commitments as express provisions in their publicly stated policies. A code of conduct would ensure the open Internet principles are followed, while at the same time enabling ISPs to offer their customers the opportunity to choose the type of BIAS experience that they would like to receive. ISPs already have made such commitments publicly in a variety of settings. These commitments then would become enforceable by the FTC under Section 5 of the FTC Act."); McDowell Testimony at 7.

[506] Acting Chairman Ohlhausen Comments at 10-11.

[507] *Id.* at 11; *see also* FTC Broadband Report at 129. We therefore reject arguments that ISPs could avoid scrutiny with vague or changing commitments. *See* Comm'r McSweeny Comments at 4; Geoffrey Rogers Comments at 7; OTI New America Reply at 27; CCIA Reply at 19; Catherine Sandoval Reply at 34-35; Engine Reply at 11.

[508] FTC Broadband Report at 129 (citing 15 U.S.C. § 45(n) and *Orkin Exterminating Co. v. FTC*, 849 F.2d 1354, 1363-66 (11th Cir. 1988)).

[509] FTC Broadband Report at 130.

[510] *Id*. at 134.

[511] *See* AT&T Comments at 1 ("[R]egardless of what regulatory regime is in place, we will conduct our business in a manner consistent with an open Internet."); *id*. at 2 ("No ISP engages in blocking or throttling without a reasonable network-management justification . . . a baseline prohibition on blocking and throttling merely codifies standard industry practice."); *id*. at 101 (AT&T "would support a set of bright-line rules that require transparent disclosures of network-management practices and prohibit blocking and throttling of Internet content without justification."); Frontier Comments at 1 (Frontier "remains committed to the fundamental principles of Internet freedom—no blocking, throttling, or unreasonable discrimination based on the content of the communications."); *id*. at 5-6 ("Frontier does not block or throttle customer access to content, and Frontier supports transparently sharing information about its services. . . . Frontier does not have any interest in favoring certain Internet content or in interfering with anyone's right to free speech. Frontier remains committed to ensuring its users can access the content of their choice . . . . The fundamental Internet freedoms will remain as strong as ever, whether or not they are backed by outdated Title II regulation."); Comcast Comments at 52-53 ("To be clear, we continue to strongly support a free and Open Internet and the preservation of modern, strong, and legally enforceable net neutrality protections. We don't block, throttle, or discriminate against lawful content delivered over the Internet, and we are committed to continuing to manage our business and network with the goal of providing the best possible consumer experience. . . . Comcast will continue to support the principles of ensuring transparency and prohibiting blocking, throttling, and anticompetitive paid prioritization."); Cox Comments at 1 ("Cox will continue to provide unimpeded access to all of the Internet content and services that its customers desire-—without throttling or blocking lawful traffic or engaging in unreasonable discrimination."); Letter from Barry Ohlson, Vice President, Cox Communications, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Oct. 18, 2017) (Cox *Ex*
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without imposing public-utility regulation on ISPs.[512] As discussed below, we believe that case-by-case, *ex post* regulation better serves a dynamic industry like the Internet and reduces the risk of over-regulation.[513] We also reject assertions that the FTC has insufficient authority, because, as Verizon argues, "[i]f broadband service providers' conduct falls outside [the FTC's] grant of jurisdiction—that is, if their actions cannot be described as anticompetitive, unfair, or deceptive—then the conduct should not be banned in the first place."[514] And the transparency rule that we adopt today should allay any concerns about the ambiguity of ISP commitments,[515] by requiring ISPs to disclose if the ISPs block or throttle legal content. Finally, we expect that any attempt by ISPs to undermine the openness of the Internet would be resisted by consumers and edge providers.[516] We also observe that all states have laws proscribing deceptive trade practices.[517]

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Parte) (Cox is "unwaveringly committed to maintaining Internet freedom as a matter of sound business and public policy. . . . Cox will continue to provide unimpeded access to all of the Internet content and services that its customers desire—without throttling or blocking lawful traffic or engaging in unreasonable discrimination."); Charter Comments at 2 ("Consistent with Charter's pro-customer and pro-broadband approach, we have long put the principles of an open internet into practice in our own business. We do not block, throttle, or otherwise interfere with the online activity of our customers, and we are transparent with our customers regarding the performance of our service."); Verizon Comments at 19 ("[W]e will not block [customers'] access to any legal content, applications, or services based on their source."); NCTA Comments at 54 n. 215 (citing NCTA's ad in the Washington Post, in which 21 ISPs, both large and small, affirmed that they will not "block, throttle or otherwise impair [a user's] online activity."); Letter from William Bottiggi, General Manager, BELD Broadband, et al., to the Honorable Ajit Pai, Chairman, FCC, WC Docket No. 17-108, at 1 (filed Nov. 21, 2017) (12 non-profit municipal ISPs stating that "[w]e never block, throttle, or impair our customers' traffic, nor engage in paid prioritization of traffic crossing our networks").

[512] *See* Acting Chairman Ohlhausen Comments at 11 ("Notably, many major BIAS providers have now explicitly promised to adhere to net neutrality principles. These kinds of promises are enforceable by the FTC, assuming it has jurisdiction over the BIAS provider."). We reject arguments to the contrary. *See* Catherine Sandoval Reply Exh. C ("Major ISPs post policy statements on their websites proclaiming that the ISP does not block or throttle data, but these policies are excluded from their consumer contracts. . . [the commitments] are neither written in the language of promise nor condition, nor are they integrated into user agreements, rendering them unenforceable in contract.").

[513] *See* Acting Chairman Ohlhausen Comments at 5-8, 12-13; FTC Staff Comments at 24-25, 29.

[514] Verizon Reply at 27; *see* OTI New America Reply at 27-31 (arguing paid prioritization and free expression concerns not protected by FTC). In addition to rejecting claims that the FTC's authority is insufficient, we also reject arguments that it lacks the necessary expertise to protect consumers in this area. *See, e.g.*, Letter from John A. Howes, Jr., Policy Counsel, Computer & Communications Industry Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 3 (filed Nov. 17, 2017). The comments by the FTC's Acting Chairman in this proceeding persuade us of that agency's understanding of the issues and of its ability to resume oversight of ISP practices. *See generally* Acting Chairman Ohlhausen Comments. Just as importantly, any loss of expertise is outweighed by the benefits of having a single expert consumer protection agency overseeing the entire Internet ecosystem. *See infra* para. 154. We anticipate sharing information and expertise with the FTC as we work together to protect consumers under the framework adopted today. *See* FTC, FCC Outline Agreement To Coordinate Online Consumer Protection Efforts Following Adoption of the Restoring Internet Freedom Order, News Release, https://www.fcc.gov/document/fccftc-coordinate-online-consumer-protection-efforts.

[515] *See* Anant Raut Comments at 2; OTI Reply at 28; Public Knowledge Reply at 10-11; CCIA Reply at 19. For the same reasons, the transparency rule allows us to reject the argument that antitrust and consumer protection enforcers cannot detect problematic conduct. *See* Comm'r McSweeny Comments at 6 ("Detection of discriminatory conduct by ISPs may be challenging in the first place. For example, how would a typical consumer be able to determine whether a slow or grainy download was caused by malfeasance or something routine and benign?"); CCIA Reply at 21.

[516] NCTA Comments at 52 ("If an ISP were to threaten to block or degrade access to [major edge providers], such a strategy would be self-defeating and immediately provoke a hostile reaction from consumers."); Acting Chairman Ohlhausen Comments at 9-10 ("Advocates vigorously argue, citing surveys, anecdotes, and counts of comments

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143. *Antitrust*. The antitrust laws, particularly Sections 1 and 2 of the Sherman Act, as well as Section 5 of the FTC Act, protect competition in all sectors of the economy where the antitrust agencies have jurisdiction.[518] When challenged as anticompetitive under the antitrust laws, the types of conduct and practices prohibited under the *Title II Order* would likely be evaluated under the "rule of reason," which amounts to a consumer welfare test.[519] The Communications Act includes an antitrust savings clause, so the antitrust laws apply with equal vigor to entities regulated by the Commission.[520] Should the hypothetical anticompetitive harms that proponents of Title II imagine eventually come to pass, application of the antitrust laws would address those harms.[521]

144. Section 1 of the Sherman Act bars contracts, combinations, or conspiracies in restraint of trade, making anticompetitive arrangements illegal. If ISPs reached horizontal agreements to unfairly block, throttle, or discriminate against Internet conduct or applications, these agreements likely would be

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filed, that consumers place great value in the equal treatment of data by ISPs. In that case, any ISP that systemically degrades applications and content that its subscribers demand will face a consumer backlash. There is strong evidence that edge providers are quite capable of mobilizing their customers to make known their demands. Indeed, the limited number of non-neutral practices even before the 2015 Order suggests that ISPs are already accommodating consumer demands.").

[517] *See* American Legislative Exchange Council (ALEC) Comments at 2. ALEC observes that "[s]tates are free to bring their own enforcement actions, often through their state's attorney general, against providers that violate representations made to consumers. State consumer protection laws may also permit private causes of action brought by disaffected consumers and companies." *Id.* at 3.

[518] 15 U.S.C. §§ 1-2, 45; *see also* FTC Staff Comments at 24.

[519] A welfare approach was established in *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979), a result generally attributed to the influence of Robert Bork. *See* Joshua D. Wright and Douglas H. Ginsburg, *The Goals of Antitrust: Welfare Trumps Choice*, 81 Fordham L. Rev. 2405 (2013). There is some contention as to whether the standard is one of total welfare, following Bork (Joseph Farrell & Michael L. Katz, *The Economics of Welfare Standards in Antitrust*, 2 CPI Journal at 3 (2006)), or consumer welfare (*see*, *e.g.,* C.S. Damero, *Present at Antitrust's Creation: Consumer Welfare in the Sherman Act's State Statutory Forerunners*, 125 Yale L.J. 1072 (2016)). Statements in FTC documents in the record support both approaches. *See, e.g.*, FTC Broadband Report at 121 ("Conduct that has the potential to be both anticompetitive and harmful to consumers, under certain conditions, and procompetitive and capable of improving efficiency, under other conditions, is analyzed under the 'rule of reason' to determine the net effect of such conduct on consumer welfare."); Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 142 ("The rule of reason adopts an all-encompassing inquiry, paying close attention to the consumer benefits and downsides of the challenged practice based on the facts at hand. If that inquiry shows that a particular act of paid prioritization, throttling, or blocking enhanced consumer welfare, then that should be the end of the matter from a competition standpoint.").

[520] 47 U.S.C. § 152(b) ("[N]othing in this Act . . . shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws.").

[521] Michael L. Katz, *Wither U.S. Net Neutrality Regulation?*, 50 Rev. Indus. Org. 441, 450 (2017) ("[T]he Commission has not established that its regulations offer significant incremental benefit over existing state and federal antitrust policies of general applicability. The Commission has never offered a convincing explanation of why, if a BIAS provider's actions raise serious competitive concerns, those concerns could not be addressed using existing antitrust laws. . . [T]here is substantial experience with the enforcement of antitrust laws, which is important because antitrust enforcement does not typically create the industry-wide uncertainty that has been triggered by the Commission's vague, new regulations.") (Katz, *Wither U.S. Net Neutrality Regulation?*); FreedomWorks Comments at 9; Free State Foundation Comments at 39-40 ("Title I reclassification . . . should not be understood as an abandonment of regulatory oversight of the market. Rather, it should be understood as a policy determination that consumers and the broadband market can most effectively be protected by empowering agencies whose core competencies include enforcement of competition law."); Judicial Watch Comments at 12; Internet Innovation Alliance Reply at 25.

per se illegal under the antitrust laws.[522] Section 2 of the Sherman Act, which applies if a firm possesses or has a dangerous probability of achieving monopoly power, prohibits exclusionary conduct, which can include refusals to deal and exclusive dealing, tying arrangements, and vertical restraints.[523] Section 2 makes it unlawful for a vertically integrated ISP to anticompetitively favor its content or services over unaffiliated edge providers' content or services.[524] Treble damages are available under both Section 1 and Section 2.[525]

145. Most of the examples of net neutrality violations discussed in the *Title II Order* could have been investigated as antitrust violations. Madison River Communications blocked access to VoIP to foreclose competition to its telephony business; an antitrust case would have focused on whether the company was engaged in anticompetitive foreclosure to preserve any monopoly power it may have had over telephony. Whether one regards Comcast's behavior toward BitTorrent as blocking or throttling,[526] it could have been pursued either as an antitrust or consumer protection case. The Commission noted that BitTorrent's service allowed users to view video that they might otherwise have to purchase through Comcast's Video on Demand service[527]—a claim that could be considered an anticompetitive foreclosure claim under antitrust.[528] Comcast also failed to disclose this network management practice and initially denied that it was engaged in any throttling[529]—potentially unfair or deceptive acts or practices. If an ISP that also sells video services degrades the speed or quality of competing "Over the Top" video services (such as Netflix),[530] that conduct could be challenged as anticompetitive foreclosure.

146. Among the benefits of the antitrust laws over public utility regulation are (1) the rule of reason allows a balancing of pro-competitive benefits and anti-competitive harms; (2) the case-by-case nature of antitrust allows for the regulatory humility needed when dealing with the dynamic Internet; (3) the antitrust laws focus on protecting competition; and (4) the same long-practiced and well-understood laws apply to all Internet actors.

147. *Reasonableness*. The unilateral conduct that is covered by Section 2 of the Sherman Act would be evaluated under a standard similar to the rule of reason applicable to conduct governed by Section 1, "an all-encompassing inquiry, paying close attention to the consumer benefits and downsides

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[522] *See* FTC Staff Comments at 27. EFF argues that the single entity doctrine means that a vertically-integrated ISP could collude with its affiliated content arm without fear of the antitrust laws. EFF Comments at 12. This argument is inapposite, however, because such a claim against a vertically-integrated ISP would likely be based on Section 2 of the Sherman Act under an attempted monopolization theory, rather than as a Section 1 collusion claim.

[523] *See* FTC Staff Comments at 26-29. We note that FTC enforcement of Section 5 is broader and would apply in the absence of monopoly power.

[524] *See id.*

[525] *See id.*

[526] Comcast claimed it merely delayed the data, but the Commission determined that this was immaterial to the decision. *Comcast-BitTorrent Order*, 23 FCC Rcd at 13053-54, para. 44.

[527] *Id.* at 13030, para. 5.

[528] The Commission itself concluded that "Comcast's practice selectively blocks and impedes the use of particular applications, and we believe that such disparate treatment poses significant risks of anticompetitive abuse." *Id.* at 13055-56, para. 47. While it is less clear whether AT&T's three-month blocking of Facetime for customers with unlimited mobile data plans could have been subject to an antitrust challenge, the same forces that led AT&T to change its policy in that instance likely apply now, but with greater strength.

[529] *Id.* at 13030-31, 13058-59, paras. 6, 52-53.

[530] AppNexus Comments at 2 ("[ISPs] might also create new tolls that only big companies would be able to afford. We have already seen this happen in some cases, such as cable companies imposing fees on services like Netflix. . . .")

of the challenged practice based on the facts at hand."[531] We believe that such an inquiry will strike a better balance in protecting the openness of the Internet and continuing to allow the "permissionless innovation"[532] that made the Internet such an important part of the modern U.S. economy, as antitrust uses a welfare standard defined by economic analysis shaped by a significant body of precedent.[533]

148. The case-by-case, content-specific analysis established by the rule of reason will allow new innovative business arrangements to emerge as part of the ever-evolving Internet ecosystem.[534] New arrangements that harm consumers and weaken competition will run afoul of the Sherman Act, and successful plaintiffs will receive treble damages.[535] The FTC and DOJ can also bring enforcement actions in situations where private plaintiffs are unable or unwilling to do so. New arrangements benefiting consumers, like so many Internet innovations over the last generation, will be allowed to continue, as was the case before the imposition of Title II utility-style regulation of ISPs.[536]

149. We reject commenters' assertions that the case-by-case nature of antitrust enforcement makes it inherently flawed.[537] A case-by-case approach minimizes the costs of overregulation, including

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[531] Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 142.

[532] *See* R Street Comments at 26-27.

[533] Compare this to the Internet Conduct Standard, which would examine a variety of considerations broader than consumer welfare, as well as factors yet to be determined. *See infra* Part IV.B.2.a.

[534] Acting Chairman Ohlhausen Comments at 12 ("In dynamic, innovative industries like internet services, an *ex post* case-by-case enforcement-based approach has advantages over *ex ante* prescriptive regulation. It mitigates the regulator's knowledge problem and allows legal principles to evolve incrementally.").

[535] Hazlett and Wright at 3; Joshua D. Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation*, Perspectives from FSF Scholars at 3 (Aug. 16, 2017), http://www.freestatefoundation.org/images/Antitrust_Provides_a_More_Reasonable_Framework_for_Net_Neutrality_Regulation_081617.pdf.

[536] As the economic literature teaches that vertical integration may increase efficiency, the antitrust laws will permit greater innovation in vertical agreements than the tightly regulated confines of the *Title II Order*. *See* Keith N. Hylton, *Law, Social Welfare, and Net Neutrality*, 50 Rev. Indus. Org. 417, 425 ("[N]et neutrality goes further than necessary. Antitrust laws already exist for regulating anticompetitive conduct, and they attempt to regulate with a finer brush than the net neutrality rule. An antitrust court would take efficiencies into account in any analysis of a complaint against a vertically-integrated platform owner on antitrust grounds. The net neutrality principle ignores efficiencies.") (Hylton); Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation*, at 4 ("The rule of reason analysis would not result in a categorical ban on vertical agreements. Instead, by applying rule of reason, vertical agreements would be analyzed on a case-by-case basis, and be rejected only if careful economic analysis concluded there are anticompetitive effects greater than any procompetitive effects or efficiencies. . . The economics literature on vertical agreements is consistent and very clear: while vertical agreements are capable of harming competition in the manner contemplated by net neutrality proponents, vertical agreements are more often beneficial to consumers."); Hazlett & Wright at 3 (explaining that "vertical integration (including coordination between input suppliers and their downstream partners) is ubiquitous throughout the economy and in most cases is overwhelmingly efficient and provides net benefits to consumers"); Verizon Econ. Decl. at 12-13 ("Vertical arrangements are widely-recognized to be generally procompetitive . . . This is not to say that vertical arrangements can never be anticompetitive, but such instances can be addressed through *ex post* case-by-case enforcement . . ., and do not justify *ex ante* regulation that imposes a blanket ban or other substantial restrictions on vertical contractual arrangements between broadband and content providers. . . The *Title II Order*[] and proponents . . . fail to identify anticompetitive vertical arrangements that would be better addressed through public utility-style regulation, rather than by case-by-case oversight by antitrust agencies.").

[537] *See* INCOMPAS Comments at 71-72; OTI New America Comments at 16; Comm'r McSweeny Comments at 4-5 ("Even if the FTC were to detect the practice, investigate, and conclude that it was competitively harmful, we could not travel back in time to undo the harm to the excluded rival or to the competitive evolution of the marketplace. An up-front rule, by contrast, would be more likely to prevent the harm in the first place."); Voices Coalition Comments at 34 (asserting that "transfer[ring] FCC jurisdiction to the [FTC and DOJ] are unlikely to curb

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tarring all ISPs with the same brush, and reduces the risk of false positives when regulation is necessary.[538] We believe the Commission's bright-line and Internet conduct rules are more likely to inhibit innovation before it occurs, whereas antitrust enforcement can adequately remedy harms should they occur. As such, we reject the argument that innovation is best protected by *ex ante* rules and command-and-control government regulation.[539] Further, while a handful of ISPs are large and vertically integrated with content producers, most ISPs are small companies that have no leverage in negotiations with large edge providers, which include some of the most valuable companies in the world.[540] Regulating these companies is unnecessarily harmful.[541] The antitrust laws can be tailored to the ISP's circumstances.[542]

150. Moreover, the case-by-case analysis, coupled with the rule of reason, allows for innovative arrangements to be evaluated based on their real-world effects, rather than a regulator's *ex ante* predictions.[543] Such an approach better fits the dynamic Internet economy than the top-down mandates imposed by Title II.[544] Further, the antitrust laws recognize the importance of protecting innovation.[545]

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anti-competitive practices and allow the agency to step in only after consumers have experienced harm. This reactionary regulatory regime unduly burdens consumers and would cause confusion and dysfunction."); CCIA Reply at 20 ("[I]dentifying instances of [ISPs] blocking or interfering with users' expression after it occurs does not change the fact that the users have been harmed. There is no easy remedy after the fact—speech that has been chilled cannot be microwaved.").

[538] *See* Technology Policy Institute (Leonard & Wallsten) Comments at 11 ("Antitrust is preferable to the OIO rules, because antitrust can be applied on a case-by-case basis when the facts indicate that the conduct is anticompetitive."); Hal J. Singer, *Paid Prioritization and Zero Rating: Why Antitrust Cannot Reach the Part of Net Neutrality Everyone Is Concerned About*, Antitrust Source at 9 (Aug. 2017) ("[W]ith any blanket ban involving vertical restraints there is a risk that nondiscriminatory, procompetitive arrangements would be banned as well. When conduct can be motivated for both procompetitive and anticompetitive reasons, economists (and antitrust law) tend to favor ex post rules so as to avoid those types of error costs.") (Singer, *Paid Prioritization and Zero Rating*).

[539] *See, e.g.*, Comm'r McSweeny Comments at 4 ("*[E]x ante* rules provide innovators with confidence that discriminatory network access will not threaten their chances for competitive success."); INCOMPAS Comments 69-70 (citing Project Concord, OVD which tried to use the *ex post* rules put in place after the Comcast-NBC Universal merger); IFTA Comments at 7. *But see* Acting Chairman Ohlhausen Comments at 13 ("even prescriptive rules must be enforced, and the outcomes of such enforcement actions are not inherently predictable, particularly when the prescriptive rules are out of date or applied to technologies and business models that were not contemplated when the rules were adopted.").

[540] ACA Comments at 32-33; USTelecom Comments at 22; ACLP Comments at 8-9.

[541] *See supra* paras. 103-106.

[542] We reject as fundamentally speculative claims that significantly different behavior is likely from entities that were subject to antitrust suits, as compared to those that have not yet been—but still could be—subject to such suits, or based on the theory that antitrust authorities are likely to negotiate materially different resolutions even for similarly situated entities or circumstances. *See, e.g.*, AARP Comments at 13 ("[A]ntitrust . . . , with its characteristic case-by-case approach, could result in segmented regulation of broadband markets, with some providers—those whose conduct has been required to conform to procompetitive behavior—offering superior opportunities for consumers and edge providers, as opposed to other providers that were not subject to a suit, or which were able to negotiate a weaker level of protection for consumers and edge providers.").

[543] *See* Acting Chairman Ohlhausen Comments at 12 ("A case-by-case approach also focuses on actual or likely, specifically-pled harms rather than having to predict future hypothetical harms.").

[544] *Id.*

[545] We accordingly reject the arguments that antitrust cannot protect innovation. *See, e.g.*, Engine Reply at 10-11 (asserting that "antitrust law is principally designed to address direct and immediate competition or consumer harms and generally cannot rectify problems associated with lost innovation, even though this decrease in innovation will ultimately result in less competition and in turn less consumer welfare down the road"); Singer, *Paid Prioritization*
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Indeed, the FTC has pursued several cases in recent years where its theory of harm was decreased innovation.[546] Accordingly, we believe that antitrust law can sufficiently protect innovation, which is a matter of particular importance for the continued development of the Internet.[547] We also find that the combination of the transparency rule, ISP commitments, and their enforcement by the FTC sufficiently address the argument made by several commenters that antitrust moves too slowly and is too expensive for many supposed beneficiaries of regulation.[548]

151. Additionally, the existence of antitrust law deters much potential anticompetitive conduct before it occurs, and where it occurs offers recoupment through damages to harmed competitors.[549] Some

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and Zero Rating at 2 ("[I]f the net neutrality concern is a loss to edge innovation, a slow-paced antitrust court is not the right venue. The Internet-based industries at issue here are strongly characterized by first-mover effects and network effects, which renders antitrust's slow-moving process especially problematic. While public enforcement of innovation-based claims is possible, it likely would take an edge provider months if not years to motivate an antitrust agency to bring a case," and arguing lost innovation is a difficult case to make under antitrust laws); Akamai Comments at 8-9 ("Broadband provider practices favoring affiliates are unlikely to manifest in the type of demonstrable price hikes or output effects that are most common predicates to successful antitrust challenges. Thus, the kind of challenge likely to be at issue here is among the most difficult to pursue, requiring significant financial resources, taking years to resolve, and resulting in monetary damages.").

[546] *See* Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation* at 6-7 (the FTC alleged harm to innovation in 54 of the 164 mergers it challenged from 2004 to 2014, and noting DOJ and FTC Section 2 cases which alleged harm to innovation).

[547] Some commenters argue that antitrust law is more limited in scope than the rules in the *Title II Order*, antitrust enforcement necessarily takes place after some harm has already occurred, and proving an antitrust violation can be expensive and time-consuming. *See, e.g.*, OTI New America Comments at 15-17. However, with a body of established and evolving precedent, the FTC's antitrust enforcement is fact-based, flexible and applicable to Internet-related markets before the *Title II Order*. 15 U.S.C. § 45; FTC Staff Comments at 23-25. We find that the antitrust framework will strike a better balance by protecting competition and consumers while providing industry with greater regulatory certainty. *See, e.g.*, FTC Staff Comments at 23-25 ("The competitive issues raised by the growth of the Internet and all of its subsidiary technologies are not new to antitrust law . . . the FTC is able to protect consumers and the competitive process without placing undue burdens on industry").

[548] Comm'r McSweeny Comments at 6 ("[*E*]*x ante* rules provide innovators with confidence that discriminatory network access will not threaten their chances for competitive success. A system that relies solely on backward-looking antitrust enforcement, on the other hand, cannot provide the same assurances because it would require detection, investigation, and potentially lengthy rule-of-reason analysis."); *see also* Akamai Comments at 10 (antitrust litigation will be "almost certainly be too little and too late, particularly in the highly dynamic Internet environment. Thus, the kind of challenge likely to be at issue here is among the most difficult to pursue, requiring significant financial resources, taking years to resolve, and resulting in monetary damages"); AARP Comments at 12-13; ESA Comments at 8-9; Vimeo Comments at 24-25 ("We do not believe that [antitrust] laws provide an effective substitute for clear rules that bar discriminatory activity. Problems with video quality that are not addressed in the near term can have profound and lasting impacts on an edge provider's user base and market share. A private antitrust lawsuit is a costly proposition that takes years to investigate and prosecute, by which time any damage will have been done and irreversibly so. Most Internet startups do not have the resources to fund the battery of lawyers and technical and economic experts required to demonstrate whether a poor streaming experience was caused by the streaming service or the broadband carrier and whether the broadband carrier acted in an anti-competitive fashion."); Engine Reply at 9-10 ("Startups operate on incredibly short runways and thin margins. By the time the FTC or DOJ Antitrust Division can initiate an action to remedy abusive ISP practices, those abusive practices will have already put affected startups out of business. Considering how lengthy and expensive antitrust cases can be, it is impossible to imagine any startup having the resources to survive long enough for an FTC proceeding to end, much less initiating and winning an antitrust action."); Electronic Gaming Foundation Comments at 3; Kip Comments at 3; ESA Reply at 4; American Association of Community Colleges et al. Reply at 8-9.

[549] *See* Acting Chairman Ohlhausen Comments at 13 ("Some have criticized the FTC's case-by-case approach as reactive, with no capability to prevent future injuries. Yet civil law enforcement has always served as both a

(continued….)

commenters have cast doubt on the effectiveness of *ex post* enforcement, preferring *ex ante* rules.[550] Yet as the FTC staff noted in its comments, this is a false dichotomy. "Effective rule of law requires both appropriate standards—whether established by common law court, Congress in statute, or by an agency in rules—and active enforcement of those standards."[551] Even the "bright line" rules in the *Title II Order* contain an exception for "reasonable network management."[552] An ISP accused of violating those rules would be the subject of an *ex post* FCC enforcement action. The FCC would have to determine *ex post* whether a challenged practice constituted technical network management or not.

152. Moreover, economic research has demonstrated that the threat of antitrust enforcement deters anticompetitive actions. Block et al. find that an increase in the likelihood of antitrust enforcement in the U.S. has a significant effect on lowering prices to consumers.[553] Similarly it has been found that countries with vigorous antitrust statutes and enforcement, such as the United States, reduce the effects of anticompetitive behavior when it does occur.[554] There is also evidence that firms, once they have been subject to an enforcement action, are less likely to violate the antitrust laws in the future.[555] Overall, we have confidence that the use of antitrust enforcement to protect competition in the broadband internet service provider market will ensure that consumers continue to reap the benefits of that competition. We conclude that the light-touch approach that we adopt today, in combination with existing antitrust and consumer protection laws, more than adequately addresses concerns about Internet openness, particularly as compared to the rigidity of Title II.[556]

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corrective for the specific behavior of the defendant as well as a *deterrent* against similar future actions by the same or other actors.").

[550] *See, e.g.*, Comm'r McSweeny Comments at 6; Vimeo Comments at 24-25; Internet Association Comments at 26; INCOMPAS Comments 69-70; IFTA Comments at 16.

[551] FTC Staff Comments at 21.

[552] *See, e.g.*, 47 CFR § 8.5.

[553] Michael Kent Block, Frederick Carl Nold, & Joseph Gregory Sidak, *The Deterrent Effect of Antitrust Enforcement*, 89 J. Pol. Econ. 429-445 (June 1981). Additional evidence of the effectiveness of antitrust enforcement can be found in David F. Lean, Jonathan D. Ogur, and Robert P. Rogers, *Does Collusion Pay . . . Does Antitrust Work?*, 51 Southern Econ. J. 828-841 (Jan. 1985); Michael K. Block and Jonathan S. Feinstein, *Controlling Collusion in the Construction Industry: Some Lessons from Recent U. S. Experience*, 10 World Competition 41-55 (1986); Dosoung Choi and George C. Philippatos, *Financial Consequences of Antitrust Enforcement*, 65 Rev. Econ. & Stat. 501-506 (Aug. 1983).

[554] Clarke and Everett found that the effects of an international vitamin cartel were reduced in countries with an antitrust authority that was actively engaged in enforcement. Julian L. Clarke and Simon J. Everett, *Deterrent Effects of National Anticartel Laws: Evidence from International Vitamins Cartel*, Antitrust Bulletin 689-726 (Fall 2003).

[555] Sally S. Simpson & Christopher S. Koper, *Deterring Corporate Crime*, 30 Criminology 347-376 (Aug. 1992).

[556] Some commenters have raised issues about the feasibility of antitrust as applied to some potential harms. CompTIA and OTI claim that the unilateral refusal to deal and essential facilities cases are more difficult to bring after *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko*, 540 U.S. 398 (2004) and *Pacific Bell Tel. Co. v. linkLine Commc'ns, Inc.*, 555 U.S. 438 (2009). *See* CompTIA Comments at 3 ("The decisions in these cases suggest that slowing an edge provider's content down to cripplingly slow speeds may not qualify as a unilateral refusal to deal or violate the essential facilities doctrine under antitrust law."); OTI New America Comments at 17; Singer, *Paid Prioritization and Zero Rating*, at 3 ("[T]he recent tendency in antitrust jurisprudence has been to relax nondiscrimination obligations . . . *Trinko* cast doubt in the viability of the essential facilities doctrine, particularly as applied to regulated industries, such as telecom and potentially Internet access").

To the extent these commenters are correct, the transparency rule and FTC enforcement of the commitments (based on Section 5 of the FTC's Act broader reach than antitrust) remain to protect the openness of the Internet, and the shifts in antitrust doctrine do not support the imposition of Title II.

153. *Focus on protecting competition*. One of the benefits of antitrust law is its strong focus on protecting competition and consumers. If a particular practice benefits consumers, antitrust law will not condemn it. The fact that antitrust law protects competition means that it also protects other qualities that consumers value. "[The] assumption that competition is the best method of allocating resources in a free market recognizes that all elements of a bargain—quality, service, safety, and durability—and not just the immediate cost, are favorably affected by the free opportunity to select among alternative offers."[557] The market competition that antitrust law preserves will protect values such as free expression, to the extent that consumers value free expression as a service attribute and are aware of how their ISPs' actions affect free expression.[558] The lack of evidence of harms to free expression on the Internet also bolsters our belief that Title II is unnecessary to protect social values that are not the focus of antitrust. The anecdotes of harms to Internet openness cited by supporters of the *Title II Order* almost exclusively concern business decisions regarding network management,[559] rather than being aimed at or impacting political expression.[560] In any case, the transparency rule and the ISP commitments backed up by FTC enforcement are targeted to preserving free expression, particularly the no-blocking commitment.[561]

154. Finally, applying antitrust principles to ISP conduct is consistent with longstanding economic and legal principles that cover all sectors of the economy, including the entire Internet ecosystem.[562] Applying the same body of law to ISPs, edge providers, and all Internet actors avoids the regulatory distortions of Title II, which "impos[ed] asymmetric behavioral regulations . . . on broadband ISPs under the banner of protecting Internet openness, but le[ft] Internet edge providers free to threaten or engage in the same types of behavior prohibited to ISPs free of any *ex ante* constraints."[563] Our decision today to return to light-touch Title I regulation and the backstop of generally-applicable antitrust and consumer protection law "help[s] to ensure a level, technology-neutral playing field" for the whole Internet.[564]

D. Restoring the Information Service Classification is Lawful and Necessary

155. The Commission has the legal authority to return to the classification of broadband Internet access service as an "information service." The Supreme Court made clear when affirming the

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[557] *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 695 (1978).

[558] Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 145-46. The competitive process and antitrust would not protect free expression in cases where consumers have decided that they are willing to tolerate some blocking or throttling in order to obtain other things of value.

[559] *See supra* paras. 109-115.

[560] Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 146-47.

[561] Therefore, we believe that the argument that antitrust law does not consider non-economic factors such as free expression and diversity fails to support Title II regulation. *See* Cmm'r McSweeny Comments at 4; Sen. Franken Comments at 3-4; CCIA Reply at 20; Public Knowledge Reply at 9-10; American Association of Community Colleges et al. Reply at 8; Geoffrey Rogers Comments at 7; EFF Comments at 10; Catherine Sandoval Reply at 45; ITIF Comments at 18; Free Press Comments at 68.

[562] *See, e.g.*, ICLE Comments at 71; Frontier Comments at 10-11; ACLP Comments at 8-10; ACA Comments at 67; Free State Foundation Comments at 38-40; CEI Comments at 6.

[563] ACA Comments at 67.

[564] NCTA Comments at 56. *See id.* ("One important advantage of an FTC-led approach is that *all* participants in the Internet ecosystem could be subject to oversight by a single agency. Indeed, whereas the [FCC] has suggested it lacks authority to engage in open Internet oversight over entities other than [ISPs], the FTC would be able to prevent . . . unfair or deceptive acts or practices by others in the Internet ecosystem as well."); Oracle May 5, 2017 *Ex Parte* Letter at 2 (criticizing *Title II Order* for "focusing only on traditional access providers [while] ignor[ing] the largest and most dominant internet players from a customer perspective," and supporting FTC "as the impartial cop on the broadband beat with authority to reach all the participants in the internet economy").

Commission's original information service classification of cable modem service that Congress "delegated to the Commission authority to execute and enforce the Communications Act, as well as prescribe the rules and regulations necessary in the public interest to carry out the provisions."[565] This delegation includes the legal authority to interpret the definitional provisions of the Communications Act.[566] Nothing in the record meaningfully contests this fundamental point.[567] Relying on that authority, we change course from the *Title II Order* and restore the information service classification of broadband Internet access service, which represents the best interpretation of the Act. As discussed above, this action is supported by the text, structure, and history of the Act, the nature of ISP offerings, judicial and Commission precedent, and the public policy consequences flowing from reclassification.[568]

156. An agency of course may decide to change course, and such a decision is not, as some commenters suggest, inherently suspect.[569] The Supreme Court has observed that there is "no basis in the Administrative Procedure Act or in our opinions for a requirement that all agency change be subjected to more searching review. . . . [I]t suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates."[570] Relevant precedent holds that we need only "examine the relevant data and

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[565] *Brand X*, 545 U.S. at 980.

[566] *Id*. at 980-81.

[567] For this reason, and for those set forth more fully in Section III above, we reject claims that an information service classification is unambiguously precluded. *See, e.g.*, CDT Comments at 5-17; Free Press Comments at 41-64; Friends of Community Media Comments at 5-8; RISE Stronger Comments at 10-16. Such assertions are contrary to our interpretation of the statutory language and our application of it to the facts before us and also find no support in the relevant court precedent addressing prior classification decisions, which either affirmed an information service classification or affirmed the recent telecommunications service classification as merely a permissible interpretation of ambiguous statutory language. *See, e.g.*, *Brand X*, 545 U.S. at 986-1000; *USTelecom*, 825 F.3d at 701-11; *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205, 215-20 (3d Cir. 2007). In making these arguments, commenters do not dispute the Commission's general authority to interpret and apply the Act, but merely present arguments regarding the reasonableness or permissibility of interpreting or applying the Act in particular ways.

[568] We reject arguments against reclassification based on alleged shortcomings in the justification for changing course provided in the *Internet Freedom NPRM* given that we fully explain here our rationale for revisiting the *Title II Order*'s classification of broadband Internet access service. *See, e.g.*, National Consumer Law Center Comments at 8; Parrhesia Project Comments at 1.

[569] *See, e.g.*, Cogent Comments at 33 (Reversing course based on disagreement with the reasoning in the first instance "undermines the deference-to-expertise justification that underlies courts' deference to agency interpretations of statutes they manage."); NTCH/Flat Wireless Comments at 16 ("[C]hange must start from the principle that the existing law is entitled to deference, and change requires more than simple disagreement.").

[570] *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514, 515 (2009) (*Fox*) (emphasis in original); *see also, e.g.*, *Chevron Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 863 (1984) ("Our review of the EPA's varying interpretations of the word 'source'—both before and after the 1977 Amendments—convinces us that the agency primarily responsible for administering this important legislation has consistently interpreted it flexibly—not in a sterile textual vacuum, but in the context of implementing policy decisions in a technical and complex arena. The fact that the agency has from time to time changed its interpretation of the term 'source' does not, as respondents argue, lead us to conclude that no deference should be accorded the agency's interpretation of the statute."). It is true that an agency must "provide a more detailed justification than what would suffice for a new policy created on a blank slate . . . when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account." *Fox*, 556 U.S. at 515. However, "[i]n such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." *Id*.

articulate a satisfactory explanation for [our] action," a duty we fully satisfy here.[571] The "possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency's finding from being supported by substantial evidence."[572] Rather, we are "entitled to assess administrative records and evaluate priorities" in light of our current policy judgments.[573] As the Court recognized in *Brand X*, "in *Chevron* itself, the Court deferred to an agency interpretation that was a recent reversal of agency policy."[574] The *USTelecom* decision supports our understanding of the relevant legal standard, affirming the *Title II Order*'s reclassification of broadband Internet access service irrespective of whether any facts had changed.[575]

157. Such a change in course can be justified on a variety of possible grounds. The Supreme Court observed in *Brand X* that "the agency . . . must consider varying interpretations and the wisdom of its policy on a continuing basis, for example in response to . . . a change in administrations."[576] In addition, if an agency's predictions "prove erroneous, the Commission will need to reconsider" the associated regulatory actions "in accordance with its continuing obligation to practice reasoned decision-

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[571] *Fox*, 556 U.S. at 513 (internal quotation marks omitted).

[572] *Domestic Sec. Inc. v. SEC*, 333 F.3d 239, 249 (D.C. Cir. 2003) (quoting *Schoenbohm v. FCC*, 204 F.3d 243, 246 (D.C. Cir. 2000), internal quotation marks omitted); *see also, e.g.*, NCTA Comments at 12 ("The Commission need not rely on any 'changed factual circumstances' as 'critical to [the Commission's] classification decision.'"); USTelecom Comments at 16 ("Case law similarly recognizes that agencies can revise their factual conclusions and, relatedly, that the same agency record can permit a range of factual conclusions."). As such, we reject arguments that reclassification must be premised on changed factual circumstances or preceded by a significant gap in time. *See, e.g.*, Att'ys General Comments at 12, 17-18; CCIA Comments at 34-36; Cogent Comments at 32; D.C. CTO Comments at 10; NASUCA Comments at 8-10; Parrhesia Project Comments at 1, 7-8; RISE Stronger Comments at 1, 2; Internet Association Reply at 14.

[573] *National Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1043 (D.C. Cir. 2012); *see also, e.g.*, Comcast Comments at 50 ("In short, if it was permissible under the APA for the previous Commission to undo nearly two decades of consistent Title I classification decisions and findings on the basis of predictive judgments regarding the policy merits of Title II, it unquestionably remains permissible for the current Commission to reinstate the Title I classification that was in place for nearly two decades and that has already been approved by the Supreme Court."); Letter from Henry G. Hultquist, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 2 (filed Sept. 27, 2017) (AT&T Sept. 27 *Ex Parte* Letter) ("It is also entirely permissible for an agency to reverse course because its new leadership disagrees on broad policy grounds with the controversial agenda of the agency's prior leadership. . . . In short, nothing in the APA requires the Commission to base its reinstatement of an 'information service' classification on any findings of fact that post-date the *Title II Order*.").

[574] *Brand X*, 545 U.S. at 981-82.

[575] *USTelecom*, 825 F.3d at 709 ("But we need not decide whether there 'is really anything new' because, as the partial dissent acknowledges, the Commission concluded that changed factual circumstances were not critical to its classification decision: '[E]ven assuming, *arguendo*, that the facts regarding how [broadband service] is offered had not changed, in now applying the Act's definitions to these facts, we find that the provision of [broadband service] is best understood as a telecommunications service, as discussed [herein] . . . and disavow our prior interpretations to the extent they held otherwise.'" (citations omitted)).

[576] *Brand X*, 545 U.S. at 981 (citation and internal quotation marks omitted); *see also, e.g.*, *Nat'l Ass'n of Home Builders*, 682 F.3d at 1043 ("A change in administration brought about by the people casting their votes is a perfectly reasonable basis for an executive agency's reappraisal of the costs and benefits of its programs and regulations." (quoting *Motor Vehicle Mfrs. Ass'n. of U.S, Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 59 (1983) (Rehnquist, J., concurring in part and dissenting in part), internal quotation marks omitted)); Cox Comments at 7-8 (citing *Brand X*, 545 U.S. at 982); NCTA Comments at 11-12 (same); Verizon Comments at 60 ("The fact that a new administration is in place, with a new take on such questions [of broadband Internet access service policy], is a particularly strong basis for reevaluating the prior Commission's policies and returning to the historical approach in this area.").

making."[577] In short, the Commission's reasoned determination today that classifying broadband Internet access service as an information service is superior both as a matter of textual interpretation and public policy suffices to support the change in direction—even absent any new facts or changes in circumstances. But even assuming such new facts were necessary, the record provides several other sufficient and independent bases for our decision to revisit the classification of broadband Internet access service.

158. For example, we find that the *Title II Order*'s regulatory predictions have not been borne out. Although purporting to adopt a 'light-touch' regulatory framework for broadband Internet access service,[578] this view of the *Title II Order's* action faced skepticism at the time, and we find those concerns confirmed in practice.[579] For example, the Wireless Telecommunications Bureau initiated inquiries into wireless ISPs' sponsored data and zero-rated offerings, leading to a report casting doubt on the legality of certain types of such offerings.[580] That report was later retracted.[581] And the Commission proceeded, in the wake of the reclassification in the *Title II Order*, to adopt complex and highly prescriptive privacy regulations for broadband Internet access service, which ultimately were disapproved by Congress under the Congressional Review Act.[582] The amorphous and potentially wide-ranging implications of the Title II-based regulatory framework have hindered (or will likely hinder) marketplace innovation,[583] as the record here indicates and as one logically would expect.[584] That certain specific steps eventually were

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[577] *Aeronautical Radio v. FCC*, 928 F.2d 428, 445 (D.C. Cir. 1991); *see also, e.g.*, ACA Comments at 58 (citing *Aeronautical Radio*, 928 F.2d at 445); Verizon Comments at 53 (citing *Chevron*, 467 U.S. at 863-63 and *Am. Family Ass'n v. FCC*, 365 F.3d 1156, 1166 (D.C. Cir. 2004)). In *USTelecom* the D.C. Circuit applied a limited and highly deferential standard of review to the Commission's predictive judgements, *see, e.g.*, *USTelecom*, 825 F.3d at 707, 710, and thus efforts to distinguish *Aeronautical Radio* based on the limited review conducted by the court there are unavailing. *See, e.g.*, CCIA Comments at 33-34 ("[G]iven that the D.C. Circuit admitted that its 'decision [was] controlled by [a] limited standard of review' on this particular question, *Aeronautical Radio* should not be read to giving [sic] the Commission the 'more than ample latitude' that Commission [sic] claims it does in the *NPRM*." (footnote omitted)); CCIA Reply at 26 (similar). In any case, efforts to narrow the interpretation of precedent cited in the *NPRM* to the cases' specific facts and circumstances, *see, e.g.*, CCIA Comments at 33-37; CCIA Reply at 26-27, neglects the broader body of precedent—including the Supreme Court's decision in *Chevron*—emphasizing an agency's continuing responsibility to evaluate how prior policy judgments are borne out in practice. *Chevron*, 467 U.S. at 863-64 ("[T]he agency, to engage in informed rulemaking, must consider varying interpretations and the wisdom of its policy on a continuing basis."); *see also, e.g.*, *Brand X*, 545 U.S. at 981 (quoting *Chevron*, 467 U.S. at 863-64); *Mary V. Harris Found. v. FCC*, 776 F.3d 21, 24 (2015) (same).

[578] *Title II Order*, 30 FCC Rcd at 5603-04, para. 5.

[579] *See, e.g.*, *USTelecom*, 825 F.3d at 754-56 (Williams, J., concurring in part and dissenting in part).

[580] Wireless Telecommunication Bureau, Policy Review of Mobile Broadband Operators' Sponsored Data Offerings for Zero Rated Content and Services (Jan. 11, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf.

[581] *Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators' Sponsored Data Offerings For Zero Rated Content And Services*, Order, 32 FCC Rcd 1093 (WTB 2017).

[582] *See 2016 Privacy Order*, 31 FCC Rcd at 13911; Pub. L. No. 115-22.

[583] *See supra* Part III.C.1.

[584] *See, e.g.*, AT&T Sept. 27 *Ex Parte* Letter, Attach. at 1 ("[I]t is indisputable as a matter of economic theory that any broad scheme of economic regulation imposes costs (which may or may not be outweighed by benefits) on the affected industry. It is also indisputable that these costs are particularly pronounced where, as here, the industry is technologically and commercially dynamic, the regulatory regime imposes broad and unpredictable conduct restrictions, and it generates widespread concerns about regulatory creep. These observations hold true whether or not these regulatory costs—in the form of forgone investment and innovation—can be measured with precision." (citations omitted)). We thus reject the suggestion that the *Title II Order* yielded "legal and economic certainty." *See* Free Press Comments at 4.

rolled back is no cure—rather, those initial actions provide cause for significant concerns that the regulatory framework adopted in the *Title II Order* would be anything but "light-touch" over time. Given the evidence that the Title II-based framework prompted additional regulatory action and was not living up to its "light-touch" label, we disagree with claims that "[t]here has been no material change of circumstance since the adoption of the" *Title II Order*,[585] or that the shortcomings inherent in the Title II approach could be addressed adequately through minor adjustments to the rules adopted in the *Title II Order*.[586]

159. Further, we are not persuaded that there were reasonable reliance interests in the *Title II Order* that preclude our revisiting the classification of broadband Internet access service.[587] Assertions in the record regarding absolute levels of edge investment do not meaningfully attempt to attribute particular portions of that investment to any reliance on the *Title II Order*.[588] Nor are we persuaded that such reliance would have been reasonable in any event, given the lengthy prior history of information service classification of broadband Internet access service, which we are simply restoring here after the brief period of departure initiated by the *Title II Order*.[589]

160. "[A]n agency literally has no power to act . . . unless and until Congress confers power upon it."[590] And so our role is to achieve the outcomes Congress instructs, invoking the authorities that Congress has given us—not to assume that Congress *must* have given us authority to address any problems the Commission identifies. However, rather than looking to Congress to address its statutory authority after the 2010 *Comcast* decision, the Commission instead attempted increasingly-regulatory approaches under existing statutory provisions, culminating in the *Title II Order*'s application of a legal regime that was ill-suited for broadband Internet access service. Returning to the Commission's historically sound approach to interpreting and applying the Act to broadband Internet access service corrects what we see as shortcomings in how the Commission, in the recent past, conceptualized its role in this context.

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[585] ACLU Comments at 21; *see also, e.g.*, Mozilla Comments at 7 ("We have not seen significant evidence of any problems with the 2015 rules.").

[586] *See, e.g.*, D.C. CTO Comments at 9.

[587] *See, e.g.*, INCOMPAS Reply at 7 ("Moreover, reliance interests also demand heightened scrutiny. Billions of dollars of investment have flowed into investment at the edge in reliance on the existence of the 2015 rules. Those reliance interests must (as explained further below) be respected through maintenance of the 2015 rules." (footnote omitted)); OTI Dec. 7 *Ex Parte* Letter; Letter from Twilio Inc to the Federal Communications Commission, at 2 (Dec. 7, 2017) ("[M]assive investment in technology . . . fostered by a communications environment that has, for over a decade, operated under the assumption of established bright line rules"). Contrary to Twilio's assertion that bright-line rules are over a decade old, we note that the Commission did not establish any rules until 2010—just seven years ago—and did not establish enforceable bright-line rules until 2015—just two years ago.

[588] *See, e.g.*, Comcast Comments at 49-50 ("If challengers were to raise this [reliance] argument, it would be *their* burden to establish the reliance interests that the Commission must take into consideration: '[T]he extent to which' the FCC must 'address reliance will be affected by the thoroughness of [challengers'] public comments,' and they must present those costs with particular specificity." (emphasis in original, footnote omitted)); AT&T Sept. 27, 2017 *Ex Parte* Letter, Attach. at 3 ("Although edge providers have indeed invested billions of dollars since 2015, they also invested billions of dollars in the years leading up to 2015, and neither INCOMPAS nor anyone else provides any empirical basis for speculating that edge investment since 2015 would have been substantially lower in the absence of Title II regulation.").

[589] *See, e.g.*, Verizon Comments at 52 ("This is not the case of an abrupt agency departure from a long-settled interpretation; rather, this proceeding involves a *restoration* of such an interpretation."); *id*. at 54 ("[U]nlike the *Title II Order*, which upset decades of settled regulatory analysis, the Commission's proposal in the *Notice* will not disrupt any meaningful investment-backed expectations.").

[590] *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986).

161. We also conclude that the Commission should have been cautioned against reclassifying broadband Internet access service as a telecommunications service in 2015 because doing so involved "laying claim to extravagant statutory power over the national economy while at the same time strenuously asserting that the authority claimed would render the statute 'unrecognizable to the Congress that designed' it."[591] Such interpretations "typically [are] greet[ed] . . . with a measure of skepticism" by courts,[592] and we believe they should be by the Commission, as well.[593] As relevant here, the D.C. Circuit in *Verizon* observed that "regulation of broadband Internet providers"—there, rules that required *per se* common carriage—"certainly involves decisions of great 'economic and political significance.'"[594] That seems at least as apt a description of the *Title II Order* decision classifying broadband Internet access service as a common carrier telecommunications as one adopting rules compelling the service to be offered in a manner that is *per se* common carriage.[595] In particular, the *Title II Order* recognized that classification of broadband Internet access service as a telecommunications service would, absent forbearance, subject the service and its providers to a panoply of duties and requirements ill-suited to broadband Internet access service.[596] Thus, not only did reclassification involve what we see as a claim of extravagant statutory power, but the Commission found that much of the resulting power was not sensibly applied to broadband Internet access service—a view we believe also would be held by Congress itself.[597] Restoring the information service classification that applied for nearly two decades before the *Title II Order* does not require any claim by the Commission of extravagant statutory power over broadband Internet access service and eliminates the anomaly that ill-fitting Title II regulation would apply by default to broadband Internet access service. These considerations thus lend support to our decision to reclassify broadband Internet access service as an information service.

E. Effects on Regulatory Structures Created by the *Title II Order*

162. In this section, we clarify the regulatory effects of today's reinstatement of broadband Internet access service as a Title I "information service" on other regulatory frameworks affected or imposed by the *Title II Order*, including the effects on: 1) Internet traffic exchange arrangements; 2) the *Title II Order*'s forbearance framework; 3) privacy; 4) wireline broadband infrastructure; 5) wireless

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[591] *Utility Air Regulatory Group*, 134 S.Ct. at 2444 (citation omitted).

[592] *Id*.

[593] We rely on these principles to inform what interpretation constitutes the best reading of the Act independent of any broader legal implications that potentially could result from such considerations. Thus, although the separate opinions in the denial of rehearing *en banc* in *USTelecom* debated the application of such principles here—including with respect to issues of agency deference and the permissibility of the Commission's prior classification—we need not and do not reach such broader issues. *Compare, e.g.*, *U.S. Telecom Ass'n v. FCC*, 855 F.3d at 383-88 (Srinivasan, J., and Tatel, J., concurring) (arguing that *Brand X* dictates that the court reject arguments against agency deference and/or the permissibility of the Commission's prior interpretation based on the "major questions" or "major rules" doctrine), *with, e.g.*, *id*. at 402-08 (Brown, J., dissenting) (statutory ambiguity was an inadequate basis to "turn[] Internet access into a public utility," which "is obviously a 'major question' of deep economic and political significance"); *id*. at 417-26 (Kavanaugh, J., dissenting) (similar).

[594] *Verizon*, 740 F.3d at 25 (quoting *FDA v. Brown & Williamson Tobacco Corp*., 529 U.S. 120, 160 (2000)).

[595] *See, e.g.*, AT&T Comments at 86-87 (discussing the economic and political significance of classifying broadband Internet access service as a telecommunications service); TechFreedom Reply at 11 (similar).

[596] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5616, 5818, paras. 51, 58.

[597] 47 U.S.C. § 230(b)(2) ("It is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation . . . ."); *see, e.g.*, ACA Comments at 55-56 (discussing the poor fit of Title II); AT&T Comments at 88-89 (similar); Comcast Comments at 25.

broadband infrastructure; 6) universal service; 7) jurisdiction and preemption; and 8) disability access.[598]

1. Ending Title II Regulation of Internet Traffic Exchange

163. The *Title II Order* applied, for the first time, the requirements of Title II to Internet traffic exchange "by an edge provider . . . with the broadband provider's network."[599] We make clear that as a result of our decision to restore the longstanding classification of broadband Internet access service as an information service, Internet traffic exchange arrangements are no longer subject to Title II and its attendant obligations.[600] We thus return Internet traffic exchange to the longstanding free market framework under which the Internet grew and flourished for decades.

164. *Background*. As the *Title II Order* acknowledges, the market for Internet traffic exchange between ISPs and edge providers or their intermediaries "historically has functioned without significant Commission oversight."[601] For many years, both ISPs and edge providers largely paid third-party backbone service providers for transit, and backbone providers connected upstream until they reached Tier 1 backbone service providers[602] which provided access to the full Internet. In recent years, particularly with the rise of online video, edge providers increasingly used CDNs and direct interconnection with ISPs, rather than transit, to increase the quality of their service. At the same time, ISPs have increasingly built or acquired their own backbone services, allowing them to interconnect with

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[598] We do not intend for today's classification to affect ISPs' obligations under the Communications Assistance for Law Enforcement Act, the Foreign Intelligence Surveillance Act, or the Electronic Communications Privacy Act. *See* 47 U.S.C. § 1001-1010; 50 U.S.C. §§ 1801-1813; 18 U.S.C. chs. 119, 121, 206. No commenter identifies any such effect of reclassification, nor does such a change appear to have justified the classification decision in the *Title II Order*. We also are not persuaded that our classification decision will itself have material negative consequences as it relates to safe harbor protections for ISPs under the Digital Millennium Copyright Act (DMCA). *See, e.g.*, Letter from Harold Feld, Senior VP, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 3 (filed Dec. 7, 2017) (Public Knowledge Dec. 7 *Ex Parte*). Our actions here return to the analysis in *Brand X* and other pre-2015 classification decisions and the associated successful regulatory framework, and we are not persuaded that the DMCA would apply materially differently now so as to render the regulatory framework for broadband Internet access service less successful today.

[599] *Title II Order*, 30 FCC Rcd at 5686, paras. 195 & n.498, 204. OTI's argument that Internet traffic exchange was not classified as a Title II service is unpersuasive. The *Title II Order* did not subject Internet traffic exchange to Title II obligations but, as OTI acknowledges, interpreted broadband Internet access services *to include* Internet traffic exchange between an ISP and an edge provider or its transit provider as "a portion" of the service, or alternatively as used "for and in connection with" that service. In doing so, the *Title II Order* applied certain Title II requirements to these Internet traffic exchange arrangements. *See* OTI New America Comments at 50-51 (asserting that the *Title II Order* did not classify interconnection as a Title II service, but rather established that interconnection was part of broadband Internet access service).

[600] *See Title II Order*, 30 FCC Rcd at 5686, para. 193 & n.478 (applying sections 201 (just and reasonable rates, *inter alia*), 202 (prohibition of unreasonable discrimination), 208 (Commission complaint procedures), 222 (privacy), 224 (pole attachments), 225 (services for hearing-impaired individuals), 254 (universal service), and 255 (access by persons with disabilities) of the Act to Internet traffic exchange).

[601] *Title II Order*, 30 FCC Rcd at 5693, para. 203. We disagree with assertions that withdrawing from regulation of interconnection agreements would represent a break with longstanding Commission precedent. *See* INCOMPAS Nov. 20, 2017 *Ex Parte* Letter at 11-13. The Commission made clear in the *Open Internet Order* that it did not intend the open Internet rules "to affect existing arrangements for network interconnections, including existing paid peering arrangements." *Open Internet Order*, 25 FCC Rcd at 17944, n.209; *see also 2014 Notice*, 29 FCC Rcd at 5582, para. 59 (explaining that the *Open Internet Order* applied to an ISP's use of its own network but did not apply the rules "to the exchange of traffic between networks, whether peering, paid peering, content delivery network (CDN) connection, or any other form of inter-network transmission of data, as well as provider-owned facilities that are dedicated solely to such interconnection").

[602] "Tier 1 backbone service providers . . . peer[] with each other and thereby provide[] their customer networks with access to the full Internet." *Title II Order*, 30 FCC Rcd at 5687, para. 196.

other networks without paying for third-party transit services.[603]

165. Notwithstanding these developments, but in line with other aspects of the *Title II Order* seeking to extend the Commission's regulatory authority, the Commission seized on a handful of anecdotes[604] to extend utility-style regulation to Internet traffic exchange arrangements. The *Title II Order* applied eight different sections of Title II, including sections 201, 202, and 208, to traffic exchange between ISPs and edge providers or their intermediaries.[605] Although the *Title II Order* did not apply the bright-line rules to Internet traffic exchange, it stated that the Commission would be "available to hear disputes regarding arrangements for the exchange of traffic with a broadband Internet access provider raised under sections 201 and 202 on a case-by-case basis."[606] The Commission did not articulate specific criteria that it would apply when hearing such disputes.

166. *Deregulating Internet Traffic Exchange*. Today, we return to the pre-*Title II Order* status quo by classifying broadband Internet access service as an information service and, in doing so, reverse that Order's extension of Title II authority to Internet traffic exchange arrangements.[607] There is no dispute that ISPs, backbone transit providers, and large edge providers are sophisticated, well-capitalized businesses.[608] Indeed, the *Title II Order* acknowledged as much,[609] and refused to impose "prescriptive rules" or even "draw policy conclusions concerning new paid Internet traffic arrangements."[610] Notwithstanding these acknowledgments, the *Title II Order* cast a shadow on new arrangements in this sector by applying a range of common carrier requirements to Internet traffic exchange.

167. We believe that applying Title II to Internet traffic exchange arrangements was unnecessary and is likely to unduly inhibit competition and innovation. As the court in *USTelecom* observed, the *Title II Order*'s oversight of interconnection was premised on the concern that ISPs could evade the restrictions imposed via regulation of the "last mile" through actions taken in connection with Internet interconnection arrangements.[611] Here, however, we conclude that Title II regulation and conduct

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[603] *See id.* at 5687-90, paras. 196-99. Edge providers are building their own transit networks as well. *See* Tim Stronge, *Optical Illusions: Content Providers and the Impending Transformation of International Transport*, https://pc.nanog.org/static/published/meetings/NANOG71/1434/20171003_Stronge_Optical_Illusions_Content_v1.pdf.

[604] In particular, the Commission cited the congestion that affected Netflix traffic transported by transit providers Cogent and Level 3 to certain ISP networks. *See Title II Order*, 30 FCC Rcd at 5690-91, para. 200.

[605] *Id.* at 5686, para. 193 & n.478. We reject the argument that this application of Title II, which includes potential Commission mandates "to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes," was light-touch, measured regulation. 47 U.S.C. § 201(a); *cf.* OTI New America Comments at 50-51 ("The jurisdiction established by the 2015 *Order* was narrow and limited. . . . [I]t is arguably the lightest possible touch the Commission could have made. It is also far less than what OTI asked the Commission to establish . . . ."); Internet Association Comments at 24.

[606] *Title II Order*, 30 FCC Rcd at 5686, para. 193.

[607] As was the case before the *Title II Order*, we retain subject-matter jurisdiction over Internet traffic exchange under Title I, to the extent such exchange arrangements are "wire" or "radio communications." 47 U.S.C. § 151; *see* CenturyLink Comments at 62; Cogent Comments at 20-22; Cogent Reply at 9.

[608] *See* Cox Comments at 34; Comcast Reply at 35.

[609] *Title II Order*, 30 FCC Rcd at 5694, para. 205.

[610] *Id.* at 5692, para. 202.

[611] *See, e.g.*, *USTelecom*, 825 F.3d at 712 (stating that "[b]y focusing on the threat that broadband providers might block edge provider access to end users at an earlier point in the transmission pathway, the NPRM allowed interested parties to comment meaningfully on the possibility that the Commission would consider interconnection

(continued….)

rules are not warranted even as to the "last mile."[612] The *Title II Order* itself recognized that the need for intervention in matters of Internet interconnection was less certain than its conclusions regarding ISP actions in the "last mile."[613] Against that backdrop, along with our finding that Commission regulation of ISP conduct in the "last mile" is unwarranted, we see no grounds for finding that Title II regulation of Internet traffic exchange is necessary here. And absent Title II as a hook for regulation of Internet traffic exchange, we can identify no other source of statutory authority to impose market-wide prophylactic regulation on these arrangements.[614]

168. Instead, we find that freeing Internet traffic exchange arrangements from burdensome government regulation, and allowing market forces to discipline this emerging and competitive market is the better course.[615] It is telling that, in the absence of Title II regulation, the cost of Internet transit fell over 99 percent on a cost-per-megabit basis from 2005 to 2015.[616] Further, we find that even those commenters that insist that ISPs wield undue power in the interconnection market have offered no evidence that ISPs generally charge supra-competitive prices for Internet traffic exchange arrangements.[617] Moreover, we reject the proposition that prior examples of settlement-free peering necessarily mean that a transit price above zero is inherently anti- or supra-competitive. While the move to paid peering may affect the bottom line of Tier 1 transit providers, those effects cannot justify *ex ante*

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arrangements to be part of the offering of telecommunications to end users," and citing comments arguing that the 2010 open Internet rules could be evaded through actions taken in the context of Internet traffic exchange).

[612] *See supra* Part III.C, *infra* Part IV.B.1, IV.B.2.

[613] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5692-93, paras. 202-03.

[614] To the extent we have previously proposed conditions on Internet traffic exchange activities in the context of specific mergers, those conditions were based on the circumstances of specific entities in specific transactions and were agreed to by those entities to facilitate a proposed merger. *See infra* note 628. Those conditions were not, however, predicated on any statutory provision giving the Commission general authority to engage in prophylactic regulation of all interconnection arrangements.

[615] Because we conclude that this is the wiser course, we reject comments asserting that a dispute resolution process is needed. *See, e.g.*, OTI New America Comments at 52; Letter from Jeffrey S. Lanning, Vice President, CenturyLink, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1 (filed Nov. 20, 2017) (CenturyLink *Ex Parte*).

[616] Comcast Comments Appendix A (citing DrPeering International, *What Are The Historical Pricing Trends,* http://drpeering.net/FAQ/What-are-the-historical-transit-pricing-trends.php.); *see also* Cox Comments at 34-35; AT&T Comments at 48-49; Comcast Comments at 73-76. We do not rely on transit pricing alone, but consider it in combination with the other factors discussed in this section, and thus reject as inapposite claims that transit pricing alone is an inadequate way of evaluating Internet traffic exchange. *See, e.g.*, OTI New America Reply at 41 (not disputing that transit prices have fallen, but arguing "this premise is flawed. The guiding measure of the interconnection market's health should be the consumer experience, not transit pricing").

[617] INCOMPAS Comments at 29, 32–33 ("Today, the four broadband providers that together provide 70% of residential connections, have market power in interconnection arrangements and negotiations, which allows them to charge a tax on Internet content requested and paid for by their subscribers."); OTI Reply at 48 (asserting that ISPs "did not lose business from this [degradation] strategy because their customers face limited options and high switching costs"); Level 3 Reply at 3 ("In the case of the largest consumer ISPs, that leverage is so great, and such a danger to the public interest, the Commission has found it necessary to limit it by express conditions in one recent merger, while the government blocked outright another merger that would have resulted in an even larger—and hence more threatening—consumer ISP."). *But see* AT&T Reply at 44 (asserting that "real-world facts also refute INCOMPAS' apparent premise that *any* payment of compensation in these circumstances—*i.e.*, any deviation from 'settlement-free traffic exchanges'—somehow shows that the party receiving the payment must have 'market power' in need of regulatory intervention. . . As with any other commercial arrangement, the existence of 'payments' for asymmetric traffic is just part of an efficient and equitable exchange of value. INCOMPAS has made no showing that such payments are even competitively significant, let alone supracompetitive.").

regulation unless they are anti-competitive and harm end users. The record is devoid of evidence of consumer harm in this regard since the resolution of the Netflix congestion issues in 2014.[618] Indeed, the new case-by-case dispute process has gone unused,[619] even as OVDs—which ISPs presumably might view as competitors to affiliated video programming products or services—have proliferated.[620] Moreover, contrary to these unsubstantiated claims of harm, we find that there are substantial pro-competitive and pro-consumer benefits to alternative Internet traffic exchange arrangements.

169. We welcome the growth of alternative Internet traffic exchange arrangements, including direct interconnection, CDNs, and other innovative efforts. All parties appear to agree that direct interconnection has benefited consumers by reducing congestion, increasing speeds, and housing content closer to consumers, and allowed ISPs to better manage their networks.[621] CDNs play a similar role.[622] We believe that market dynamics, not Title II regulation, allowed these diverse arrangements to thrive.[623] Our decision to reclassify broadband Internet access service as an information service, and to remove Title II utility-style regulation from Internet traffic exchange, will spur further investment and innovation in this market.[624] Returning to the pre-*Title II Order* light-touch framework will also eliminate the asymmetrical regulatory treatment of parties to Internet traffic exchange arrangements.[625] As NTCA explains, the *Title II Order* imposed a one-sided interconnection duty upon last-mile ISPs—even though,

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[618] *See* OTI Comments at 47–50 (citing evidence from "late 2014 and early 2014 [that] . . . the nation's four largest BIAS providers were embroiled in a series of high-profile disputes over the terms of their interconnection arrangements with transit providers and edge companies"); INCOMPAS Comments at 60–61 (citing the record of the *Title II Order*); NYAG Comments at 7 ("Spectrum-TWC's internal documents show that these interconnection disputes in [2014] were not related to technical limitations or the cost of upgrading its systems . . . but rather were the result of Spectrum-TWC's deliberate business decision to use congestion to strong-arm backbone providers and edge providers into 'paying for access' to Spectrum-TWC's subscribers.").

[619] *But see* OTI Comments at 52 (asserting that the mere existence of a dispute resolution mechanism can deter abusive practices).

[620] AT&T Oct. 31 *Ex Parte*, Israel & Keating Decl. at 42-48.

[621] OTI New America Comments at 5; M-Lab Comments at 5; NYAG Comments at 8; AT&T Reply at n.11.

[622] *See* AT&T Comments at 47; Akamai Comments at 10-11; Netflix Reply at 5 ("By storing content closer to end users, Open Connect and other CDNs free capacity on other parts of the network, which improves delivery for all types of internet content, not just data stored by those CDNs.").

[623] *See* AT&T Reply at 43-44 (explaining that "Cogent and Level 3 (and other networks originating asymmetric traffic) have more recently entered into similarly equitable long-term agreements with AT&T and other ISPs. All parties concur that those agreements have completely resolved the congestion problems that Cogent, Level 3, and others caused and then complained about several years ago" and asserting that "these new agreements were the product of the same marketplace dynamics that have governed interconnection from its inception, not of the Commission's assertion of asymmetric jurisdiction in the *Title II Order*."); Comcast Reply at 37 ("In the case of Netflix, the congestion issues were remedied because Netflix ultimately concluded that reaching a direct interconnection agreement with Comcast would better meet its needs. This agreement was plainly reasonable and mutually beneficial.").

[624] *See* Ericsson Comments at 9-10; Information Technology Industry Council (ITIC) Comments at 8-9; Verizon Reply at 25-26; NCTA Reply at 36; AT&T Reply at 45.

[625] *See* Cox Comments at 34-35 ("If anything, for providers like Cox, large edge providers that exercise substantial control over their network traffic (and transit providers that carry such traffic) have the upper hand in negotiating traffic-exchange arrangements, illustrating the problems with a one-sided regulatory regime applicable only to BIAS providers."); AT&T Comments at 48-49; AT&T Reply at 45; Verizon Reply at 25-26; Comcast Reply at 37-38; NCTA Reply at 36. *But see* Cogent Reply at 8 (asserting that because ISPs "control the sole path between any transit provider and the end-user customers, transit providers . . . have neither the opportunity nor ability to engage in the type of discriminatory behavior that has enabled some [ISPs] to extract payments directly from content providers"); OTI New America Reply at 48. We reject these arguments for the reasons discussed above.

especially in rural areas, "many ISPs are a tiny fraction of the size of upstream middle mile and transit networks or content and edge providers."[626] The record reflects that the asymmetric regulation imposed under the *Title II Order* unjustifiably provided edge providers, many of whom are sophisticated entities with significant market power due to high demand for their content, with additional leverage in negotiating interconnection.[627] We anticipate that eliminating one-sided regulation of Internet traffic exchange and restoring regulatory parity among sophisticated commercial entities will allow the parties to more efficiently negotiate mutually-acceptable arrangements to meet end user demands for network usage.

170. We find that present competitive pressures in the market for Internet traffic exchange mitigate the risk that an ISP might block or degrade edge provider traffic through arrangements for Internet traffic exchange sufficiently to undermine the need for regulatory oversight through Title II regulation.[628] We thus disagree with generalized assertions by some commenters to the contrary.[629] Interconnection concerns generally focus on the possibility that an ISP could block or allow congestion on paths used to deliver traffic to that ISP as a way of harming rivals or extracting unreasonable payments

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[626] NTCA Comments at 8.

[627] *See* Frontier Comments at 10 ("[T]he real issue is that the few largest edge providers have sought to avoid paying anything for the infrastructure upgrades required to accommodate their traffic . . . . In practice, these rules gave edge providers a green light to continue to drive greater and greater network traffic at no costs, resulting in a direct drain on infrastructure investment in areas where it is needed most, including in rural areas.").

[628] In drawing this conclusion, we recognize that the Commission previously imposed Internet interconnection conditions in the *AT&T/DirecTV Order* and *Charter/TWC Order* to address claimed risks that the merged entity could use Internet interconnection to disadvantage rivals, particularly competing providers of over-the-top video services. *See, e.g.*, *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 15-149, Memorandum Opinion and Order, 31 FCC Rcd 6327, 6374-92, paras. 93-139 (2016) (*Charter/TWC Order*); *Applications of AT&T Inc. and DIRECTV For Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90, Memorandum Opinion and Order, 30 FCC Rcd 9131, 9211-19, paras. 214-19 (2015) (*AT&T/DirecTV Order*). We decline to draw judgments about the nature of the market as a whole from individual determinations made in the context of particular merger orders. As an initial matter, the Commission made these determinations pursuant to its authority to impose conditions on transfers of licenses or authorizations. *See, e.g.*, 47 U.S.C. §§ 214, 310(d), 303(r). As noted above, the Commission has identified no broader general authority to impose these conditions on the interconnection market as a whole. In addition, those orders were based on an analysis of specific issues raised in those adjudications and application of a public-interest statutory standard that differs from the competition-based standard applied by the Department of Justice's Antitrust Division during merger review. *See infra* Part VI.A. Further, those orders were based on a narrowly-focused analysis of specific issues raised in those adjudications. *See infra* Part VI.A. Both the *Charter/TWC Order* and *AT&T/DirecTV Order* relied on the *Title II Order*'s conclusion that ISPs' end users face high switching costs and thus were limited in their ability to respond to problematic actions by their ISPs related to traffic exchange. *See, e.g.*, *Charter/TWC Order*, 31 FCC Rcd at 6380, para. 108 (quoting *Title II Order*, 30 FCC Rcd at 5694-95, para. 205); *AT&T/DirecTV Order*, 30 FCC Rcd at 9214, para. 217 (same). As we explain above, based on the record here, we decline to repeat that finding of high switching costs. *See supra* Part III.C.2. Finally, because those orders were adopted without the benefit of notice-and-comment rulemaking, we decline to make general inferences from conditions contained in such documents, when the voluminous record submitted in this proceeding persuades us that the interconnection market is competitive. We thus are unpersuaded that the actions taken in the *AT&T/DirecTV Order* and *Charter/TWC Order* should guide our decisions here.

[629] *See* OTI New America Comments at 52; INCOMPAS Reply at 21-22; OTI New America Reply at 46, 48; Public Knowledge Reply at 8; Level 3 Reply at 5, n. 16; INCOMPAS Nov. 20, 2017 *Ex Parte* Letter at 2-6. We find more persuasive the description of competition in the interconnection market located in the AT&T Oct. 31 *Ex Parte*, Israel & Keating Declaration.

associated with that interconnection.[630] Edge providers have a variety of options in deciding how to deliver their content to ISPs, including a large number of transit providers, CDNs, and direct interconnection.[631] Edge providers also can shift the path for their traffic in response to congestion in real time.[632] To address the possibility that edge providers could simply shift their traffic away from a blocked or congested path, it appears in most cases that the ISP would need to engage in blocking or allow congestion on essentially all paths to its network, affecting all traffic to and from the ISP's customers.[633] The practical viability of such a strategy thus depends in general on an ISP's willingness to undermine the performance of all or virtually all Internet traffic to and from its customers.[634] An ISP's incentive to take such a step would involve a complex marketplace evaluation requiring it to account for the associated risk of customer dissatisfaction.[635] We find that these marketplace dynamics are likely to impede, if not

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[630] *See, e.g.*, OTI New America Comments at 52; Cogent Comments at 5; New York Attorney General Comments at 1; Level 3 Reply at 5; OTI New America Reply at 5; INCOMPAS Reply Evans Decl. at 38-41; INCOMPAS Nov. 20, 2017 *Ex Parte* Letter at 1.

[631] AT&T Oct. 31 *Ex Parte*, Israel & Keating Decl. at 37-38; NCTA Reply at 34 ("[T]he traffic-exchange marketplace is robustly competitive and provides myriad ways for edge providers to deliver traffic to BIAS networks (and vice versa), including not only direct peering but transit services and content delivery network . . . services, many of which are settlement-free."); Comcast Reply at 35 ("Edge providers have a multitude of ways to route their traffic to last-mile networks—including settlement-free routes, CDNs, and transit arrangements—without the need to deal with ISPs directly."); Cogent Reply at 8 (explaining that "the transit market is highly competitive such that edge providers can select from a number of paths to reach particular BIAS providers"); OTI Reply at 46, 48.

[632] Comcast Reply at 36 ("[I]t is edge providers like Netflix (or their agents) that decide how to route their traffic, and when congestion occurs, it is often attributable to those routing choices rather than to any ISP actions."); AT&T Reply at 40 ("[I]t is the parties that send traffic to an ISP's end users that make the decisions about how to route that traffic, not the ISP itself. The receiving network has no control over how the traffic comes into its facilities, and it cannot prevent content networks and transit providers from teaming up to cause serious congestion problems by pushing a large amount of traffic over a small set of interconnection links."); NCTA Reply at 34-36.

[633] To the extent that some theorize that an ISP might harm rivals with particularly high volumes of Internet traffic through actions taken with respect to a smaller number of interconnection paths, we are not persuaded that such large providers of Internet traffic would lack sufficient leverage to achieve a reasonable marketplace resolution, *see, e.g.*, Level 3 Reply at 5, particularly given the increased likelihood that such a large source of Internet traffic would be highly valued by end-users with which it could communicate directly regarding any interconnection dispute. In addition, although certain forms of traffic might be particularly sensitive to the quality of interconnection such that some alternative interconnection paths would be inferior, it is likely that blocking or allowing degradation of a substantial number of paths to the ISP still would be necessary for such conduct to effectively impact such traffic given that the concerns in the record center on large ISPs, that are more likely than small ISPs to have multiple viable interconnection paths. *See, e.g.*, INCOMPAS Comments at 29 ("Netflix found that only the four largest wired broadband providers are able to charge a "terminating access fee" to OVDs."); *see also, e.g.*, Cogent Comments at 8; Level 3 Reply at 2; OTI New America Reply at 48. Further, that is but one of many considerations that would affect the relative incentives and marketplace leverage of the relevant ISP and interconnecting network and/or edge provider.

[634] AT&T Reply at 39 ("[T]ransit providers and their customers almost always rely on multiple redundant paths into any ISP's network, and edge providers dynamically shift between transit providers in real time to avoid congestion. An ISP thus could not execute a "degradation by congestion" strategy without limiting capacity across *all of its peering points* for extended periods. Any such strategy would be a nonstarter because it would radically degrade the ISP's Internet access service to its mass market and business customers."); Cogent Reply at 6; AT&T Oct. 31 *Ex Parte*, Israel & Keating Decl. at 37-38.

[635] Although this consideration alone does not necessarily guarantee that no ISP ever would engage in such conduct, we reject interconnection-related concerns that fail to meaningfully grapple with this factor. *See, e.g.*, Public Knowledge Reply at 8. Further, this factor must be considered in conjunction with the overlay of legal protections, such as antitrust and consumer protection laws discussed below.

preclude, any effort by an ISP to harm a specific edge provider's traffic.

171. Insofar as certain commenters contend that incidents such as Cogent's experience delivering Netflix traffic in 2014 suggest otherwise,[636] we note that the origin of the Cogent-Netflix congestion is disputed and that Cogent admitted to de-prioritizing certain types of traffic for the congestion.[637] In any event, there is ample evidence that major edge providers, including Netflix, YouTube, and other large OVDs, are some of the "most-loved" brands in the world.[638] Their reputations and the importance of reputation to their business and brand gives them significant incentive to inform consumers and work to shape consumer perceptions in the event of any dispute with ISPs. This incentive mitigates potential concerns that consumers lack the knowledge and ability to hold their ISPs accountable for interconnection disputes.[639] Further, as NCTA explains, "the edge providers that send enough traffic to impact interconnection—e.g., Netflix, Google/YouTube, Facebook, and Amazon—are entities critical for a broadband provider to meet its customers' needs."[640] As another commenter explains, edge providers, including OVDs, are complementary to ISPs' broadband business, and reducing the value of these complementary products would harm ISPs by reducing demand for their services.[641] For all of these reasons, we find that market dynamics are likely to mitigate the risk that ISPs will block, degrade, or deprioritize specific edge providers' traffic.

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[636] *See* Cogent Reply at 7 (asserting that ISPs "can, and have, been able to target edge providers by allowing congestion to occur with any transit provider that edge provider uses [and that ISPs] face no technical barriers to using congestion as a tool to extract additional payment from edge providers seeking to deliver content consumers are requesting. Moreover, the means are joined with self-serving reasons to do so."); *see also, e.g.*, NYAG Comments at 6–7 ("Spectrum-TWC [was] involved in disputes with several backbone providers and edge providers providers. During this the ports between Spectrum-TWC and certain of its interconnection peers became severely congested . . . . Spectrum-TWC's internal documents show that these interconnection disputes were not related to technical limitations or the cost of upgrading its systems to add capacity but rather were the result of Spectrum-TWC's deliberate business decision to use congestion to strong-arm backbone providers and edge providers into paying for access to Spectrum-TWC's subscribers. Spectrum-TWC did so by refusing to add ports at interconnection points, effectively limiting the ability of backbone and edge providers to deliver content to subscribers, unless the backbone or edge provider agreed to pay for access to subscribers." (quotation omitted)).

[637] *See* AT&T Reply at 40-43; Dan Rayburn, *Cogent Now Admits They Slowed Down Netflix's Traffic, Creating A Fast Lane & Slow Lane*, StreamingMediaBlog.com (Nov. 5, 2014) https://blog.streamingmedia.com/2014/11/cogent-now-admits-slowed-netflixs-traffic-creating-fast-lane-slow-lane.html; Jon Brodkin, *During Netflix money fight, Cogent's other big customers suffered too*, ArsTechnica (Nov. 5, 2014), https://arstechnica.com/information-technology/2014/11/during-netflix-money-fight-cogents-other-big-customers-suffered-too/. Indeed, as the *Title II Order* itself recognzied, particular pre-2015 disputes were subject to "competing narratives" that the *Title II Order* was unable to resolve. *Title II Order*, 30 FCC Rcd at 5690-92, para. 200-01.

[638] Netflix, Apple, Google, Microsoft, YouTube Are Most-Loved Brands, Reveals The Love Index 2016 From Accenture Interactive (Nov. 2, 2016), https://newsroom.accenture.com/news/netflix-apple-google-microsoft-youtube-are-most-loved-brands-reveals-the-love-index-2016-from-accenture-interactive.htm.

[639] AT&T Reply at 39, n.62 (stating that "leading edge providers such as Netflix and Google have their own consumer relationships and vigorously promote various 'scorecards' that compare ISP performance"); *see also* Netflix, *ISP Speed Index*, https://ispspeedindex.netflix.com; Google, *Video Quality Report* https://www.google.com/get/videoqualityreport/. Given edge providers' ability to communicate directly with their users, we are unpersuaded by claims that consumers will lack the information needed to hold their ISPs accountable. *See, e.g.*, INCOMPAS Comments at 22; Cogent Comments at 14; OTI New America Reply at 43 ("[C]onsumers lack the knowledge and ability to hold their BIAS provider accountable for interconnection disputes, which typically occur under a veil of secrecy.").

[640] Letter from Matthew A. Brill, Counsel to NCTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 8 (filed Oct. 5, 2017); *see also* AT&T Oct. 31 *Ex Parte*, Israel & Keating Decl. at 34, 41-44.

[641] AT&T Oct. 31 *Ex Parte*, Israel & Keating Decl. at 41.

172. In addition, if an ISP attempts to block or degrade traffic in a manner that is anti-competitive, such conduct may give rise to actions by federal or state agencies under antitrust or consumer protection laws.[642] As to antitrust laws, antitrust authorities are empowered to police anti-competitive conduct by ISPs (conduct that would be particularly salient in cases where ISP competition was limited or nonexistent).[643] In addition, the backstop of generally-applicable consumer protection laws continues to protect consumers and edge providers.[644] These laws, particularly antitrust laws which prevent certain refusals to deal,[645] will also protect small, rural ISPs which may face difficulties interconnecting with edge providers, transit providers, and larger ISPs.[646] Accordingly, assertions that public-utility regulation of Internet traffic exchange arrangements is necessary to allow consumers to reach content of their choice are unpersuasive.[647]

173. Even assuming that economic incentives and antitrust and consumer protection remedies may not prevent or redress all potential harms in the interconnection market, we find the regulatory approach adopted in the *Title II Order* fatally overbroad as it relates to the interconnection concerns identified in the record here. The *Title II Order*'s legal basis for oversight of interconnection depended on the definition of broadband Internet access service to include traffic exchange and the classification of that entire service as a telecommunications service subject to Title II—a classification that applied to all ISPs, regardless of size or other characteristics.[648] Here, however, we have already rejected the *Title II Order*'s rationales for Title II regulation and explained the harms that flow from that regime.[649] The record reveals that retaining the *Title II Order* approach to interconnection would be overbroad in other ways, as well. The classification decision in that *Order* applied to all ISPs regardless of size, while the concerns about ISPs in the record here center on a few of the largest ISPs.[650] The *Title II Order* classification also applied irrespective of the specific traffic being carried, while some advocates of interconnection oversight here express particular concerns about certain subsets of traffic, like video traffic.[651] Particularly given the marketplace complexities associated with whether a given ISP would, in fact, engage in harmful conduct, we are not persuaded that the inchoate interconnection concerns identified in the record here would justify retaining the *Title II Order*'s approach to interconnection with its sweeping, preemptive—and harmful—resulting consequences.

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[642] Some commenters have called for continued *ex post* regulation of Internet traffic exchange between ISPs and transit or edge providers, potentially under Title I, *see* Cogent Reply at 1; NTCA Comments at 12; WTA Comments at 2; CenturyLink *Ex Parte* at 1, or disclosure requirements, *see* OTI New America Comments at 55; Cogent Comments at 25-26. For the reasons discussed here, we reject these arguments.

[643] *See supra* Part III.C.3. We reject the argument that the Commission's decision in the *Charter-Time Warner Cable Merger Order* compels us to apply Title II regulation to interconnection (*see* INCOMPAS Comments at 58, 61-62; Internet Association Comments at 24-25) for the reasons discussed herein, *infra* Part VI.A.

[644] Cox Comments at 34-35.

[645] *See supra* Part III.C.3.

[646] *See* NTCA Comments at 12 ("[A] regulatory backstop remains essential to ensure proper incentives to interconnect and exchange data, along with some capability for the regulator to step in if needed to correct for unreasonable and/or discriminatory behavior"); WTA Comments at 2, 5; NTCA Reply at 6-7.

[647] *See, e.g.*, Amazon Comments at 7; Microsoft Comments at 21-22; OTI New America Comments at 52-54; INCOMPAS Comments at 58-59; INCOMPAS Comments at 58-59; NYAG Comments at 6-7; INCOMPAS Reply at 21-22; Level 3 Reply at 3.

[648] *Title II Order*, 30 FCC Rcd at 5693-94, paras. 201-05

[649] *See supra* Parts III.A, III.C.

[650] *See, e.g.*, Cogent Comments at 8; INCOMPAS Comments at 29; Level 3 Reply at 2; OTI New America Reply at 48.

[651] *See, e.g.*, INCOMPAS Comments at 15.

2. Forbearance

174. As we have reinstated the information service classification of broadband Internet access service, the forbearance granted in the *Title II Order* is now moot.[652] We return to the pre-*Title II Order* status quo and allow providers voluntarily electing to offer broadband transmission on a common carrier basis to do so under the frameworks established in the *Wireline Broadband Classification Order* and the *Wireless Broadband Internet Access Order*.[653] We also clarify that carriers are no longer permitted to use the *Title II Order* forbearance framework (i.e., no carrier will be permitted to maintain, or newly elect, the *Title II Order* forbearance framework).

175. Prior to the *Title II Order*, some facilities-based wireline carriers chose to offer broadband transmission services on a common carrier basis subject to the full range of Title II requirements.[654] In the 2005 *Wireline Broadband Classification Order*, the Commission ruled that broadband Internet access was an information service, but at the same time permitted facilities-based wireline carriers to voluntarily elect to offer the transmission component of broadband Internet access service (often referred to as digital subscriber line or DSL) on a common carrier basis.[655] Operators choosing to offer broadband transmission on a common carriage basis could do so under tariff or could use non-tariff arrangements.[656] The Commission permitted facilities-based carriers to choose whether to offer wireline broadband Internet access transmission as non-common carriage or common carriage to "enable facilities-based wireline Internet access providers to maximize their ability to deploy broadband Internet access services and facilities in competition with other platform providers, under a regulatory framework that provides all market participants with the flexibility to determine how best to structure their business operations."[657] Generally, ISPs that chose to elect common carrier status were smaller carriers that served "rural, sparsely-populated areas" and obtained significant benefits from the provision of broadband transmission services on a common carriage basis, including the ability to participate in common tariff arrangements via the NECA pools and the availability of high-cost universal service support.[658]

176. We agree with NTCA and NECA that the broadband transmission services currently offered by rural LECs under tariff differ substantially from the broadband Internet access services at issue in this proceeding, and as such are not impacted by our decision to reclassify broadband Internet access service as an information service.[659] The term "wireline broadband Internet access service" refers to "a mass-market retail service by wire that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the

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[652] *See* CenturyLink Comments at 31-32; *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 64.

[653] *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14853; *see also Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, paras. 32-34.

[654] *Title II Order*, 30 FCC Rcd at 5819, para. 460 & n.1376. We also note that the Commission allowed for wireless broadband Internet access service providers to elect to offer the transmission component as a telecommunications service. *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, para. 32.

[655] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14955, para. 1, 14902, para. 94; *see also id*. at 14927, para. 138 (noting that all rate-of-return carriers that participated in the proceeding stated they wish to continue offering broadband transmission as a Title II common carrier service).

[656] *Id*. at 14899-903, paras. 87-95.

[657] *Id.* at 14902, para. 94.

[658] *See* NECA Comments at 5; WTA Comments at 9.

[659] NECA Comments at 5; NTCA Comments at 19.

operation of the communications service, but excluding dial-up Internet access service."[660] Broadband transmission services do not provide end users with direct connectivity to the Internet backbone or content, but instead enable data traffic generated by end users to be transported to an ISP's Access Service Connection Point over rural LEC local exchange service facilities for subsequent interconnection with the internet backbone.[661]

177. Carriers offering broadband transmission service have never been subject to the *Title II Order* forbearance framework.[662] The *Title II Order* forbearance framework with respect to broadband Internet access service did not encompass broadband transmission services and permitted carriers to voluntarily elect to offer transmission services on a common carriage basis pursuant to the *Wireline Broadband Classification Order*.[663] The *Title II Order* made clear that broadband transmission services would continue to be subject to the full panoply of Title II obligations (e.g., USF contributions), including those from which the Commission forbore from in the *Title II Order*.[664] Thus, only carriers that elected to cease offering broadband transmission services and instead offer broadband Internet access services (including a transmission service component) were subject to the *Title II Order* forbearance framework (e.g., forbearance from USF contributions applied to such carriers).[665]

178. Today, we return to the pre-*Title II Order* status quo and allow carriers to elect to offer broadband transmission services on a common carrier basis, either pursuant to tariff or on a non-tariffed basis.[666] We find the reasoning in the *Wireline Broadband Classification Order* for offering these options persuasive.[667] Irrespective of the regulatory classification of broadband Internet access services, the Commission has continuously permitted facilities-based wireline carriers to provide broadband Internet transmission services on a Title II common carriage basis, with substantial flexibility in deciding how such services may be offered (i.e., on a tariffed or non-tariffed basis).[668] Providing these options offers small carriers much-needed regulatory certainty as they have sought to deploy and maintain broadband Internet access services to their customers.[669] We reiterate that broadband transmission services are not impacted by our decision to reclassify broadband Internet access service as an information service.[670]

179. We clarify that carriers that choose to offer transmission service on a common carriage basis are, as under the *Wireline Broadband Classification Order*, subject to the full set of Title II

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[660] *Connect America Fund et al*., Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087, 3158, para. 190 & n.421 (2016) (*Rate of Return USF Reform Order*).

[661] NECA Comments at 5 & n.16.

[662] *Title II Order*, 30 FCC Rcd at 5819, para. 460.

[663] *Id*.

[664] *Id.* at 5819, para. 460 & n.1377.

[665] *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 65; *Title II Order*, 30 FCC Rcd at 5819, para. 460 & n.1378. Over one hundred providers opted-into the *Title II Order* forbearance framework and in their letters to the Commission, they noted that the transmission component would only be provided as part of the complete broadband Internet access service. *See* Protecting and Promoting the Open Internet, GN Docket No. 14-28.

[666] *See, e.g.*, Interisle Comments at 16-17; NECA Comments at 2-6; NTCA Comments at 17-19; WTA Comments at 8-10 (all advocating to retain the ability to voluntary elect to provide service as a common carrier). *See also* Data Foundry Reply at 7.

[667] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14955, para. 1, 14899-903, paras. 87-95.

[668] NECA Comments at 4-5.

[669] *See, e.g.*, *id*. at 5; NTCA Comments at 19; WTA Comments at 9.

[670] *Supra* para. 176.

obligations, to the extent they applied before the *Title II Order*.[671] Further, we clarify that those carriers that had previously been offering a broadband transmission service (subject to the full panoply of Title II regulations) and that elected to instead offer broadband Internet access service after the *Title II Order* now will be deemed to be offering an information service. The Commission has never allowed carriers offering broadband transmission services on a common carrier basis to opt in to the *Title II Order* forbearance framework for those transmission services. Carriers that prefer light-touch regulation may elect to offer broadband Internet access service as an information service. Although WTA argues that allowing rural LECs to opt into the forbearance framework will "enable a much more level competitive playing field in the retail marketplace,"[672] no other carriers are subject to that framework, and we find that allowing carriers to opt into the forbearance framework will result in a regulatory disparity. We therefore reject WTA's argument that the Commission should continue to permit opting into the *Title II Order* forbearance.[673] To the extent that other related issues are raised in the record, we find that those issues are better addressed in the appropriate proceeding.[674]

180. We also reject AT&T's assertion that the Commission should conditionally forbear from all Title II regulations as a preventive measure to address the contingency that a future Commission might seek to reinstate the *Title II Order*.[675] Although AT&T explains that "conditional forbearance would provide an extra level of insurance against the contingency that a future, politically motivated Commission might try to reinstate a 'common carrier' classification,"[676] we see no need to address the complicated question of prophylactic forbearance and find such extraordinary measures unnecessary.

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[671] Similarly, a wireless broadband Internet access provider may choose to offer the transmission component as a telecommunications service and the transmission component of wireless broadband Internet access service as a telecommunications service only if the entity that provides the transmission voluntarily undertakes to provide it indifferently on a common carrier basis. Such an offering is a common carrier service subject to Title II. *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, paras. 32-33. In addition, a wireless broadband Internet access provider that chooses to offer the telecommunications transmission component as a telecommunications service may also be subject to the "commercial mobile service" provisions of the Act. *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913, para. 33, 5914, para. 40; and H.R. Conf. Report 104-458 (noting that the definition of "telecommunications service" was intended to include commercial mobile service).

[672] WTA Comments at 9-10.

[673] *See, e.g.*, *id*. at 8-10.

[674] On June 14, 2017, NTCA and the United States Telecom Association filed a petition seeking temporary forbearance from USF contribution obligations imposed on broadband internet transmission services provided by RLECs on a common carriage basis, pending completion of comprehensive USF contribution reform by the Commission. *Petition of NTCA-The Rural Broadband Association and the United States Telecom Association for Targeted, Temporary Forbearance Pursuant to 47 U.S.C. §160(c) from Application of Contributions Obligations on Broadband Internet Access Transmission Services Pending Universal Service Fund Comprehensive Contributions Reform*, Docket No. 06-122 (filed June 14, 2017). *See* NTCA Comments at 19; NECA Comments at 6 & n.17 (both asserting that temporary forbearance from USF contribution obligations is warranted). NTCA notes that as that petition explains, "while providing RLECs with the voluntary ability to tariff broadband transmission is an important mechanical component of universal service, the maintenance of USF contribution obligations for the select class of providers that offers broadband in this manner is disparate and anti-consumer." NTCA Comments at 19.

[675] AT&T Comments at 99-100; *see also* CenturyLink Comments at 31 (asserting the Commission should "maintain and extend" the *Title II Order* forbearance framework).

[676] AT&T Reply at 56. *But cf*. Free Press Comments at 12-13 (suggesting without elaboration that "Section 10 forbearance is predicated on the preservation of the nondiscriminatory outcomes secured by Sections 201 and 202"); NASUCA Reply at 12 (arguing AT&T's proposal should be rejected as forbearance is "intended to allow for flexibility in the application of specific regulations or elements of a statute, not for use as a path to circumvent present or future consideration of what should be the proper statutory classification of a service").

3. Returning Broadband Privacy Authority to the FTC

181. By reinstating the information service classification of broadband Internet access service, we return jurisdiction to regulate broadband privacy and data security to the Federal Trade Commission (FTC),[677] the nation's premier consumer protection agency and the agency primarily responsible for these matters in the past.[678] Restoring FTC jurisdiction over ISPs will enable the FTC to apply its extensive privacy and data security expertise to provide the uniform online privacy protections that consumers expect and deserve.[679]

182. Historically, the FTC protected the privacy of broadband consumers, policing every online company's privacy practices consistently and initiating numerous enforcement actions.[680] In fact, the FTC has "brought over 500 enforcement actions protecting the privacy and security of consumer information, including actions against ISPs and against some of the biggest companies in the Internet ecosystem."[681] When the Commission reclassified broadband Internet access service as a common carriage telecommunications service in 2015, however, that action stripped FTC authority over ISPs because the FTC is prohibited from regulating common carriers.[682] The effect of this decision was to shift responsibility for regulating broadband privacy to the Commission.[683] And in lieu of an even playing field, the Commission adopted sector-specific rules that deviated from the FTC's longstanding framework.[684] In March 2017, Congress voted under the Congressional Review Act (CRA) to disapprove

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[677] Because federal law prohibits the FTC from regulating common carriers, the *Title II Order* divested the FTC of its authority to regulate ISPs' privacy practices. *See* 15 U.S.C. § 45(a)(1); *see also Internet Freedom NPRM*, 32 FCC Rcd at 4457, para. 67.

[678] *See Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 66. Numerous commenters support restoring the FTC's authority to enforce privacy and data security throughout the Internet ecosystem. *See, e.g.*, ACT Comments at 6-8; Citizens Against Government Waste (CAGW) Comments at 4; Acting Chairman Ohlhausen Comments at 1-2, 8; Cox Comments at 23; HTTP Comments at 2; Interisle Comments at 17; U.S. Chamber of Commerce Comments at 9; Verizon Comments at 23; WISPA Comments at 29 ("Not only does the FTC have far more enforcement experience regarding Internet consumer privacy and data security, but the FCC and FTC have acknowledged that the FTC's authority under Section 5 of the FTC Act is comparable to the FCC's authority under Title II's Section 201(b)."); ADTRAN Reply at 12; AT&T Reply at 19; CALinnovates Reply at 12; Christopher Yoo Reply at 31-32; Cox Reply at 15; Comcast Reply at 26, n.100; Free State Foundation Comments at 40; HTTP Reply at 2; ITIF Reply at 15; NCTA Reply at 30-31; TechFreedom Reply at 93-94; Verizon Reply at 18-20; Letter from Randolph J. May, President, Free State Foundation, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1-2, Attach. A at 5-9 (filed Oct. 23, 2017).

[679] FTC Staff Comments at 3-21.

[680] *See* 15 U.S.C. § 45(a)(1); *2016 Privacy Order*, 31 FCC Rcd at 13945, para. 87; *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 66; *see also* FTC Staff Comments at 3-12 ("The FTC has extensive privacy and data security experience, including the enforcement of privacy and security of consumer data laws for consumer protection, policy initiatives to promote privacy and data security in all sectors of the economy, and business and consumer education on the subject."); Comcast Comments at 65; Acting Chairman Ohlhausen Comments at 1-2, 8; Cox Comments at 23; Technology Policy Institute (Leonard & Wallsten) Comments at 11; Verizon Comments at 23-24; WISPA Comments at 28-29.

[681] Comments of Comm'r Ohlhausen, WC Docket No. 16-106, at 1-2 (filed May 27, 2016); *see also 2016 Privacy Order*, 31 FCC Rcd at 13945, para. 87; FTC Staff Comments at 4 (asserting the FTC has prosecuted hundreds of cases to protect the privacy and security of consumer information).

[682] *See* 15 U.S.C. §§ 44, 45(a)(2); 47 U.S.C. § 153(51).

[683] The *Title II Order* called for a new rulemaking to apply Section 222's customer proprietary network information provisions to Internet service providers. *Title II Order*, 30 FCC Rcd at 5820, para. 462.

[684] *2016 Privacy Order*, 31 FCC Rcd at 14051, para. 334; *see also* ITIF Comments at 16 (arguing the "FCC's prior privacy rulemaking set a poor precedent for privacy rules touching other sectors of the economy, undermined the

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the Commission's 2016 *Privacy Order*, which prevents us from adopting rules in substantially the same form.[685]

183. Undoing Title II reclassification restores jurisdiction to the agency with the most experience and expertise in privacy and data security, better reflects congressional intent, and creates a level playing field when it comes to Internet privacy.[686] Restoring FTC authority to regulate broadband privacy and data security also fills the consumer protection gap created by the *Title II Order* when it stripped the FTC of jurisdiction over ISPs.[687] Consumers expect information to be "treated consistently across the Internet ecosystem and that their personal information will be subject to the same framework, in all contexts."[688] Under the FTC's technology neutral approach to privacy regulation,[689] consumers will have the consistent level of protection across the Internet ecosystem that they expect.[690] The FTC's "flexible, enforcement-focused approach has enabled the agency to apply strong consumer privacy and security protections across a wide range of changing technologies and business models, without imposing unnecessary or undue burdens on industry."[691] Moreover, the flexibility of the FTC's enforcement framework "allows room for new business models that could support expensive, next-generation networks with revenue other than consumers' monthly bills."[692] The FTC has already "delivered the message to entities in a range of fields—retailers, app developers, data brokers, health companies, financial institutions, third-party service providers, and others—that they need to provide consumers with strong privacy and data security protections."[693] The same approach should apply to ISPs.[694] And only

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U.S. position when negotiating privacy issues abroad, dramatically deviated from the usual consensus-driven multistakeholder model of developing Internet rules, and unnecessarily expanded the scope of utility-style regulation of broadband.").

[685] *See* Pub. L. No. 115-22 (Apr. 3, 2017); *see also* 5 U.S.C. § 801(b)(2).

[686] Comcast Comments at 42-43; *see also* Cox Comments at 23; Verizon Comments at 23.

[687] Acting Chairman Ohlhausen Comments at 8; *see also* CompTIA Comments at 5. *But see* EPIC Reply at 4-6.

[688] Verizon Comments at 23-24; *see also* CAGW Comments at 4; CompTIA Comments at 5-6; HTTP Comments at 2.

[689] *See* ACA Comments at 70; Cox Comments at 24; CompTIA Comments at 6; FTC Staff Comments at 20-21. *But see* Public Knowledge Reply at 39-42 (arguing the nature of broadband networks is why the FCC is better equipped to retain jurisdiction over broadband privacy); Public Knowledge et al. August 30, 2017 Letter at 6-7.

[690] *See* ADTRAN Comments at 28; Comcast Comments at 66; Cox Comments at 6, 24; FTC Staff Comments at 3-12, 18-19; ITIF Comments at 15-16; League of United Latin American Citizens Comments at 2; National Multicultural Organizations Comments at 5; Verizon Comments at 24; Verizon Reply at 18. *But see* Public Knowledge et al. August 30, 2017 Letter at 3-5 (asserting the Commission has found broadband networks have a unique position in the Internet ecosystem). With over 100 years of experience, only the FTC can apply consumer protection rules consistently across industries. *See* Acting Chairman Ohlhausen Comments at 8; Verizon Comments at 23-24.

[691] FTC Staff Comments at 20-21. *See also* Verizon Comments at 24 ("New technology-driven issues like robocalling and mobile payments, in addition to data privacy for non-common carriers, now are within the FTC's docket, and the FTC has ably dealt with them."). As NTCA contends, the FTC has not only the legal jurisdiction, but also the subject matter expertise. NTCA Reply at 14. In 2007, the FTC issued a 167-page report that delved into both the technical and legal bases of the Internet and how the law approaches it. Comm'r Ohlhausen Comments at 2-3. Moreover, the FTC has been involved in numerous initiatives that address consumer protection in the broadband marketplace. FTC Staff Comments at 7-10.

[692] ITIF Comments at 16. *But cf.* Public Knowledge Reply at 41-42.

[693] FTC Staff Comments at 21.

[694] *Id*. We also observe that ISPs are not uniquely positioned with respect to their insight into customers' private browsing behavior. As the FTC found in 2012, "ISPs are just one type of large platform provider that may have access to all or nearly all of a consumer's online activity. Like ISPs, operating systems and browsers may be in a (continued….)

the FTC operates on a national level across industries, which is especially important when regulating providers that operate across state lines.[695] In light of the FTC's decades of successful experience, including its oversight of ISP privacy practices prior to 2015,[696] we find arguments that we should decline to reclassify to retain sector-specific control of ISP privacy practices unpersuasive.[697] Furthermore, the uncertainty related to the Commission's current authority over broadband privacy regulation created by the CRA resolution of disapproval also weighs in favor of returning jurisdiction to the FTC.

184. We also reject arguments that rely on the Ninth Circuit panel decision holding that the common carrier exemption precludes FTC oversight of non-common carriage activities of common carriers.[698] Consistent with the Commission's request, the Ninth Circuit granted rehearing *en banc* of the

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position to track all, or virtually all, of a consumer's online activity to create highly detailed profiles." Fed. Trade Comm'n, Protecting Consumer Privacy in an Era of Rapid Change: Recommendations for Businesses and Policymakers at 55-56 (2012), https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf.

[695] Verizon Comments at 24; *see also* FTC Staff Comments at 20 (noting that another benefit of returning the FTC's jurisdiction to BIAS companies is that it will expand the number of companies eligible to sign up for the EU-U.S. Privacy Shield Framework).

[696] The FTC has previously brought enforcement actions against ISPs regarding Internet access and related issues. *See* Broadband Connectivity Competition Policy: FTC Staff Report, 39-40 (2007), https://www.ftc.gov/sites/default/files/documents/reports/broadband-connectivity-competition-policy/v070000report.pdf; *see also FTC v. Pricewert LLC*, 2010 WL 329913 at *1 (N.D. CA 2010) (enforcement action against "a rogue service provider that recruits, hosts and participates in the distribution of illegal, malicious, and harmful electronic content"); *FTC v. Cyberspace.com LLC*, 453 F.3d 1196, 1199-1201 (9th Cir. 2006) (action against an Internet service provider that issued checks stating in the fine print on the back, that if cashed or deposited, those actions constituted an "agreement to pay a monthly fee for internet access"); *FTC v. Verity Intern, Ltd.*, 124 F. Supp. 2d 193, 195-96 (S.D.N.Y. 2000) (action against an ISP that disconnected consumers seeking adult entertainment online from their regular ISPs and reconnected them to a Madagascar phone number where they were charged per minute). The FTC has also "brought enforcement actions in matters involving access to content via broadband and other Internet access services," such as the FTC's challenge to the proposed AOL and Time Warner merger, in part, over concern for potential harm to consumers' broadband Internet access. Broadband Connectivity Competition Policy: FTC Staff Report, 39 (2007), https://www.ftc.gov/sites/default/files/documents/reports/broadband-connectivity-competition-policy/v070000report.pdf. *See also supra* note 514. We also note that while it may be true that the Commission itself has longstanding privacy experience with respect to traditional telephone service providers, *see, e.g.*, Public Knowledge Reply at 41, we disagree that this history uniquely qualifies the Commission to regulate the privacy practices of ISPs or other online providers, when prior to 2015, the Commission did not, and indeed lacked the authority to, regulate such providers. We do not believe that experience with traditional telephone service providers necessarily translates to experience or expertise with respect to all communications providers.

[697] *See, e.g.*, ADT Comments at 7-8; Cause of Action Comments at 1, 4; Comm'r McSweeny Comments at 3-4, 7; California PUC (CPUC) Comments at 22-24; EPIC Comments at 3-8; Free Press Comments at 73; National Consumers League Comments at 2, 10-12; Public Knowledge Comments at 89-95; Sen. Pallone et al. Comments at 8-9; Voices Coalition Comments at 62-65; Asian Americans Advancing Justice Reply at 2; CCIA Reply at 18-19; EPIC Reply 2-4; League of Latin American Citizens Reply at 2-3; OTI New America Reply at 34-36. Some commenters object that the FTC is not suited to protect privacy on the Internet, citing the FTC's narrower authority and fewer resources than the Commission and the absence of specific statutory directive from Congress to the FTC to regulate privacy. *See* CDT Comments at 14; EFF Comments at 26-27; Free Press Comments at 73; Public Knowledge Comments at 93-94; EPIC Reply at 3; National Consumers League Reply at 6-7; OTI New America Reply at 34-36; Public Knowledge Reply at 38-42; Public Knowledge et al. August 30, 2017 Letter at 5-8. As discussed above, these criticisms are unfounded.

[698] *See FTC v. AT&T Mobility LLC*, 835 F.3d 993 (9th Cir. 2016), *reh'g en banc granted*, No. 15-16585, 2017 WL 1856836 (9th Cir. May 9, 2017). As the FCC's amicus letter explained in that case, the panel decision erred by overlooking the textual relationship between the statutes governing the FTC's and FCC's jurisdiction. *See* Letter Pursuant to Fed R. App. P. 28(j) of amicus FCC, *FTC v. AT&T Mobility LLC*, No. 15-16585 (9th Cir. Apr. 21,
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panel decision, and in doing so it set aside the earlier panel opinion.[699] In light of these considerations and the benefits of reclassification, we find objections based on *FTC v. AT&T Mobility* insufficient to warrant a different outcome.

4. Wireline Infrastructure

185. To the extent today's classification decision impacts the deployment of wireline infrastructure, we will address that topic in detail in proceedings specific to those issues.[700] The importance of facilitating broadband infrastructure deployment indicates that our authority to address barriers to infrastructure deployment warrants careful review in the appropriate proceedings.[701] We disagree with commenters who assert that Title II classification is necessary to maintain our authority to promote infrastructure investment and broadband deployment.[702] Because the same networks are often used to provide broadband and either telecommunications or cable service, we will take further action as is necessary to promote broadband deployment and infrastructure investment.[703] Further, Title I classification of broadband Internet access services is consistent with the Commission's broadband deployment objectives, whereas the Title II regulatory environment undermines the very private

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2017). We note that commenter concerns focus not just on the FTC's privacy authority but its authority more generally. *See, e.g.*, Letter from Harold Feld, Senior Vice President, Public Knowledge et al. to Chairman Ajit Pai, WC Docket No. 17-108, at 2 (filed Dec. 4, 2017). We reject those arguments for the reasons stated above.

[699] *See* Order, *FTC v. AT&T Mobility*, LLC, No. 15-16585 (9th Cir. May 9, 2017) ("The three-judge panel disposition in this case shall not be cited as precedent by or to any court of the Ninth Circuit."). This *en banc* order means that the *Title II Order*'s reclassification of broadband Internet access service serves as the only current limit on the authority of the FTC to oversee the conduct of Internet service providers. *See* Verizon Comments at 23; *see also* ADTRAN Comments at 29 (asserting that if the decision is not altered by *en banc* review, "the Commission should resolve the problem by deciding to adopt the same privacy requirements as the FTC so that there would be uniform privacy obligations throughout the Internet ecosphere"). We note that at any given time there always may be some litigation pending somewhere in the country challenging the scope or validity of various laws—whether the Communications Act, FTC Act, or state consumer protection laws—that the FCC might seek to rely on directly (in the case of the Act) or indirectly (where relying in part on the availability of protections provided by other laws). The Commission would be paralyzed if it had to wait for all such litigation to be resolved before it acted. Because the panel decision has been set aside in *FTC v. AT&T Mobility*, we do not view that case as materially different than any other such pending litigation—so we likewise do not view it as necessary to wait on the resolution of that case before acting here.

[700] *See Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, 32 FCC Rcd 3266 (2017); *Improving Competitive Broadband Access to Multiple Tenant Environments*, Notice of Inquiry, 32 FCC Rcd 5383, 5391, para. 21. (2017); *see also* AARP Comments at 76-77; Cisco Comments at 2-3; Mobilitie Comments at 4.

[701] There is widespread agreement in the record that the public interest supports measures that will speed deployment of broadband throughout the Nation and increase competition among ISPs. *See, e.g.*, AARP Comments at 76-77; CEI Comments at 5; INCOMPAS Comments at 35; Mobilitie Comments at 4; National Grange Comments at 4; NTCA Comments at 25-26; Public Knowledge Comments at 99. For example, the CPUC states that it conducted a study of the telecommunications market in California and found that access to utility poles is a competitive bottleneck that "limits new network entrants and may raise prices for some telecommunications services." *See* CPUC Comments 6-7.

[702] *See, e.g.*, Interisle Comments at 17; NASUCA Comments at 5; Edison Electric Institute Reply at 3; Cogent Comments at 32; Public Knowledge Comments at 99-100; Volo Broadband Comments at 1; Public Knowledge Reply at 46.

[703] *See* Cisco Comments at 2-3; Mobilitie Comments at 4; *cf.* Public Knowledge Comments at 99-100 (asserting the Commission must consider what effect a Title I classification will have on small broadband Internet access service providers and new entrants).

investment and buildout of broadband networks the Commission seeks to encourage.[704] Additionally, in the twenty states and the District of Columbia that have reverse-preempted Commission jurisdiction over pole attachments, those states rather than the Commission are empowered to regulate the pole attachment process.[705]

186. We are resolute that today's decision not be misinterpreted or used as an excuse to create barriers to infrastructure investment and broadband deployment. For example, we caution pole owners not to use this *Order* as a pretext to increase pole attachment rates or to inhibit broadband providers from attaching equipment—and we remind pole owners of their continuing obligation to offer "rates, terms, and conditions [that] are just and reasonable."[706] We will not hesitate to take action where we identify barriers to broadband infrastructure deployment. We have been working diligently to remove barriers to broadband deployment and fully intend to continue to do so.[707]

5. Wireless Infrastructure

187. When the Commission first classified wireless broadband Internet access as an information service in 2007, it emphasized that certain statutory provisions in section 224 (regarding pole attachments) and 332(c)(7) (local authority over zoning) of the Act would continue to apply where the same infrastructure was used to provide a covered service (*e.g.*, cable or telecommunications service)[708] as well as wireless broadband Internet access.[709] Section 224 gives cable television systems and providers of telecommunications services the right to attach to utility poles of power and telephone companies at regulated rates. Section 332(c)(7) generally preserves state and local authority over "personal wireless service facilities" siting or modification, but subjects that authority to certain limitations.[710] Among other limitations, it provides that state or local government regulation (1) "shall not unreasonably discriminate among providers of functionally equivalent services," (2) "shall not prohibit or have the effect of prohibiting the provision of personal wireless services" and (3) may not regulate the siting of personal wireless service facilities "on the basis of the environmental effects of [RF] emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."[711]

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[704] Charter Comments at 9; *see also* ACA Comments at 17-18 (arguing that increased pole attachment rates were a direct result of the *Title II Order*); Mobilitie Comments at 4.

[705] *States That Have Certified That They Regulate Pole Attachments*, Public Notice, 25 FCC Rcd 5541, 5542 (WCB 2010). For example, the CPUC recently opened a comprehensive proceeding on right-of-way access, including the implementation of nondiscriminatory pole attachment rights for broadband Internet access providers pursuant to the CPUC's reverse preemption. CPUC Comments at 8-9. California is among the states that have reverse-preempted the Commission, and therefore we reject California's and San Francisco's objections as to our authority over pole attachments as inapposite. *See* City and County of San Francisco Comments at 10; CPUC Comments at 7-8; CPUC Reply at 1-2.

[706] 47 U.S.C. § 224(b)(1).

[707] *See* AARP Comments at 76 (acknowledging the Commission's recent proposal of "new rules that would diminish entry barriers associated with pole attachments"); Public Knowledge Comments at 100 (acknowledging the Commission's recent efforts to speed access to utility poles and lower other barriers to entry such as high costs).

[708] Section 224 applies to cable and telecommunications service providers, while section 332(c)(7) applies to facilities that provide "personal wireless services," which include "commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services." 47 U.S.C. § 224(d), (e), (f); 47 U.S.C. § 332(c)(7)(C)(i).

[709] *Wireless Broadband Internet Access Order*, 22 FCC Rcd 5901, 5921-25, paras. 57-70.

[710] Section 332(c)(7) applies to facilities "for the provision of personal wireless services," 47 U.S.C. § 332(c)(7)(C)(ii), which include "commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services." 47 U.S.C. § 332(c)(7)(C)(i).

[711] 47 U.S.C. § 332(c)(7)(B)(i)(I)-(II), (iv).

188. As to section 224, the Commission clarified in the *Wireless Broadband Internet Access Order* that where the same infrastructure would provide "both telecommunications and wireless broadband Internet access service," the provisions of section 224 governing pole attachments would continue to apply to such infrastructure used to provide both types of service.[712] The Commission similarly clarified that section 332(c)(7)(B) would continue to apply to wireless broadband Internet access service where a wireless service provider uses the same infrastructure to provide its "personal wireless services" and wireless broadband Internet access service.[713]

189. We reaffirm the Commission's interpretations regarding the application of sections 224 and 332(c)(7) to wireless broadband Internet access service here. The Commission's rationale from 2007, that commingling services does not change the fact that the facilities are being used for the provisioning of services within the scope of the statutory provision, remains equally valid today.[714] This clarification will alleviate concerns that wireless broadband Internet access providers not face increased barriers to infrastructure deployment as a result of today's reclassification.[715] This clarification also is consistent with our commitment to promote broadband deployment and close the digital divide.

190. Although the wireless infrastructure industry has changed significantly since the adoption of the *Wireless Broadband Internet Access Order*, it remains the case that cell towers and other forms of network equipment can be used "for the provision" of both personal wireless services and wireless broadband Internet access on a commingled basis.[716] These communications facilities are sometimes built by providers themselves, but are increasingly being deployed by third-parties who then offer the use of these facilities to wireless service providers for a variety of services, including telecommunications services and information services.[717] To remove any uncertainty, we clarify that section 332(c)(7) applies to facilities, including DAS or small cells, deployed and offered by third-parties for the purpose of provisioning communications services that include personal wireless services.[718] Consistent with the statutory provisions and Commission precedent, we consider infrastructure that will be deployed for the provision of personal wireless services, including third-party facilities such as neutral-host deployments, to be "facilities for the provision of personal wireless services" and therefore subject to section 332(c)(7) as "personal wireless service facilities" even where such facilities also may be used for broadband Internet access services.

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[712] *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5922-23, paras. 60-62.

[713] *Id.* at 5923-24, paras. 63-65.

[714] *Id.* at 5924, para. 65.

[715] *See* Interisle Comments at 17; TechFreedom Comments at 96-97.

[716] 47 U.S.C. § 332(c)(7)(C)(ii).

[717] Over the past decade, national and regional wireless carriers have been selling their towers to non-carrier entities, with significant tower transactions in 2008, 2012, 2013, 2014 and 2015. According to the Twentieth Mobile Wireless Competition Report released in September 2017, "a majority of towers are now owned or operated by independent companies rather than by mobile wireless service providers." *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Nineteenth Report, 31 FCC Rcd 10534, 10585, para. 70, n.185 (WTB 2016); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services,* Twentieth Report, 32 FCC Rcd 8968, 8999, para. 44 (2017).

[718] *Cf. Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, 29 FCC Rcd 12865, 12973, para. 270-272 (2014) ("[T]o the extent DAS or small-cell facilities, including third-party facilities such as neutral host DAS deployments, are or will be used for the provision of personal wireless services, their siting applications are subject to [shot clock requirements of 332(c)(7)]."); *see also Crown Castle NG East Inc. v. Town of Greenburgh*, 2013 WL 3357169 (S.D.N.Y. 2013), *aff'd*, 552 F. App'x 47 (2d Cir. 2014) (upholding application of section 332(c)(7) to deployments by non-service providers).

191. We reiterate our commitment to expand broadband access, encourage innovation and close the digital divide. We will closely monitor developments on broadband infrastructure deployment and move quickly to address barriers in a future proceeding if necessary.[719]

6. Universal Service

192. The reclassification of consumer and small business broadband access as an information service does not affect or alter the Commission's existing programs to support the deployment and maintenance of broadband-capable networks, i.e., the Connect America Fund's high-cost universal service support mechanisms. As explained in the *USF/ICC Transformation Order*, the Commission has authority to ensure that "the national policy of promoting broadband deployment and ubiquitous access to voice telephony services is fully realized"[720] and require that "carriers receiving support . . . offer broadband capabilities to customers."[721] What services a particular customer subscribes to is irrelevant as long as high-cost support is used to build and maintain a network that provides both voice and broadband Internet access service. Thus, the classification of broadband Internet access as an information service does not change the eligibility of providers of those services to receive federal high-cost universal service support.

193. *Lifeline*. We conclude that we need not address concerns in the record about the effect of our reclassification of broadband Internet access service as an information service on the Lifeline program at this time.[722] In November 2017, we adopted a *Notice of Proposed Rulemaking* in the Lifeline proceeding (*Lifeline NPRM*) in which we proposed limiting Lifeline support to facilities-based broadband service provided to a qualifying low-income consumer over the eligible telecommunication carrier's (ETC's) voice- and broadband-capable last-mile network,[723] and sought comment on discontinuing Lifeline support for service provided over non-facilities-based networks, to advance our policy of focusing Lifeline support to encourage investment in voice- and broadband-capable networks.[724] As explained in the *Lifeline NPRM*, we "believe the Commission has authority under Section 254(e) of the Act to provide Lifeline support to ETCs that provide broadband service over facilities-based broadband-capable networks that support voice service" and that "[t]his legal authority does not depend on the regulatory classification of broadband Internet access service and, thus, ensures the Lifeline program has a role in closing the digital divide regardless of the regulatory classification of broadband service."[725] We thus find that today's reinstatement of the information service classification for broadband Internet access service does not require us to address here our legal authority to continue supporting broadband Internet access service in the Lifeline program, as such concerns are more appropriately addressed in the ongoing Lifeline proceeding.

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[719] *See, e.g.*, *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking and Notice of Inquiry, 32 FCC Rcd 3330 (2017).

[720] *See Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17683-84, para. 60 (2011) (*USF/ICC Transformation Order*).

[721] *Id.* at 17686-87, para. 65 (footnotes omitted).

[722] In the *Internet Freedom NPRM*, we sought comment on what impact, if any, returning broadband Internet access service to its classification as an information service would have on retaining support for broadband Internet access service in the Lifeline program. *Internet Freedom NPRM*, 32 FCC Rcd at 4457, para. 68.

[723] *Bridging the Digital Divide for Low-Income Consumers et al.*, WC Docket No. 17-287 et al., Fourth Report and Order, Order on Reconsideration, Memorandum Opinion and Order, Notice of Proposed Rulemaking, and Notice of Inquiry, FCC 17-155, para. 62 (Dec. 1, 2017) (*2017 Lifeline Order*).

[724] *Id*. at para. 64.

[725] *Id*. at para. 72.

7. Preemption of Inconsistent State and Local Regulations

194. We conclude that regulation of broadband Internet access service should be governed principally by a uniform set of federal regulations, rather than by a patchwork that includes separate state and local requirements. Our order today establishes a calibrated federal regulatory regime based on the pro-competitive, deregulatory goals of the 1996 Act. Allowing state and local governments to adopt their own separate requirements, which could impose far greater burdens than the federal regulatory regime, could significantly disrupt the balance we strike here. Federal courts have uniformly held that an affirmative federal policy of *de*regulation is entitled to the same preemptive effect as a federal policy of regulation.[726] In addition, allowing state or local regulation of broadband Internet access service could impair the provision of such service by requiring each ISP to comply with a patchwork of separate and potentially conflicting requirements across all of the different jurisdictions in which it operates.[727] Just as the *Title II Order* promised to "exercise our preemption authority to preclude states from imposing

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[726] *Cf., e.g.*, *Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm'n*, 461 U.S. 375, 383 (1983) ("[A] federal decision to forgo regulation in a given area may imply an authoritative federal determination that the area is best left *un*regulated, and in that event would have as much pre-emptive force as a decision *to* regulate."); *Bethlehem Steel Co. v. N.Y. State Labor Relations Bd.*, 330 U.S. 767, 774 (1947) (state regulation precluded "where failure of the federal officials affirmatively to exercise their full authority takes on the character of a ruling that no such regulation is appropriate or approved pursuant to the policy of the statute"); *Minn. Pub. Utils. Comm'n v. FCC*, 483 F.3d 570, 580-81 (8th Cir. 2007) (*Minn. PUC*) ("[D]eregulation" is a "valid federal interest[] the FCC may protect through preemption of state regulation.").

[727] *Cf. Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22427, para. 37 (2004) (*Vonage Order*) ("Allowing Minnesota's order to stand would invite similar imposition of 50 or more additional sets of different economic regulations"); *Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, Memorandum Opinion and Order, 19 FCC Rcd 3307, 3323, para. 25 (2004) (*Pulver Order*) ("[I]f Pulver were subject to state regulation, it would have to satisfy the requirements of more than 50 states and other jurisdictions"). Many commenters express concern that allowing every state and local government to impose separate regulatory requirements on ISPs would create a patchwork of inconsistent rules that may conflict with one another or with federal regulatory objectives, and that this would impose an undue burden on ISPs that could inhibit broadband investment and deployment and would increase costs for consumers. *See, e.g.*, Cox Comments at 35 (ISPs "rel[y] on . . . uniform national policies to provide service on a consistent basis across [their] footprint without being subject to a patchwork of inconsistent state regulation"); CTIA Comments at 55-56 ("A patchwork quilt of state regulation of the Internet would be unworkable and deeply harmful to consumer interests."); NCTA Comments at 64, 67 (arguing that "inconsistent state regulation undermines 'the efficient utilization and full exploitation' of Internet services" and that ISPs "would be forced to comply with a patchwork of overlapping and potentially conflicting obligations absent federal preemption"); T-Mobile Comments at 26 ("A patchwork quilt of state-by-state regulation would impair providers' ability to offer nationwide service plans and to engage in uniform practices, undermining consumer welfare. It adds operational and financial burdens without corresponding benefit."); WIA Comments at 10 n.39 ("[A] patchwork of state and local requirements . . . can reduce carriers' incentives to invest and hamper their ability to make large scale deployments."); CTIA Reply at 20 ("[Permitting state regulation] will result in obligations that differ in their particulars from those imposed by the federal government or other states. The resulting patchwork will either balkanize a service provider's offerings or force the provider to conform all its offerings to the requirements of the most stringent state."); Verizon Reply at 16 ("[T]he substantial burdens of piecemeal regulation by states would frustrate the federal policy to promote broadband development through light-touch, federal regulation."); Letter from Anand Vadapalli, President & CEO, Alaska Communications Systems, et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O'Rielly, Commissioner, FCC, WC Docket No. 17-108, at 2 (filed Nov. 17, 2017) (Letter from Rural ISPs) ("[I]t is important that states and localities not be allowed to impose common carrier-like regulations, including economic regulations, on broadband providers."); McDowell Tesimony at 12-15. *see also* Letter from William H. Johnson, Senior Vice President Federal Regulatory and Legal Affairs, Verizon, to Marlene Dortch, Secretary, FCC, at 11 (filed Oct. 25, 2017) ("The possibility of 50 different sets of rules . . . would impose costly requirements, hamstring technological innovations, and create severe regulatory uncertainty; these costs would inevitably hinder investment in broadband Internet.") (Verizon FCC Preemption White Paper).

regulations on broadband service that are inconsistent" with the federal regulatory scheme, we conclude that we should exercise our authority to preempt any state or local requirements that are inconsistent with the federal deregulatory approach we adopt today.[728]

195. We therefore preempt any state or local measures that would effectively impose rules or requirements that we have repealed or decided to refrain from imposing in this order or that would impose more stringent requirements for any aspect of broadband service that we address in this order.[729] Among other things, we thereby preempt any so-called "economic" or "public utility-type" regulations,[730] including common-carriage requirements akin to those found in Title II of the Act and its implementing rules, as well as other rules or requirements that we repeal or refrain from imposing today because they could pose an obstacle to or place an undue burden on the provision of broadband Internet access service and conflict with the deregulatory approach we adopt today.[731]

196. Although we preempt state and local laws that interfere with the federal deregulatory policy restored in this order, we do not disturb or displace the states' traditional role in generally policing such matters as fraud, taxation, and general commercial dealings, so long as the administration of such general state laws does not interfere with federal regulatory objectives.[732] Indeed, the continued

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[728] *See Title II Order*, 30 FCC Rcd at 5804, para. 433.

[729] This includes any state laws that would require the disclosure of broadband Internet access service performance information, commercial terms, or network management practices in any way inconsistent with the transparency rule we adopt herein. Our transparency rule is carefully calibrated to reflect the information that consumers, entrepreneurs, small businesses, and the Commission needs to ensure a functioning market for broadband Internet access services and to ensure the Commission has sufficient information to identify market-entry barriers—all without unduly burdening ISPs with disclosure requirements that would raise the cost of service or otherwise deter innovation within the network.

[730] The terms "economic regulation" and "public utility-type regulation," as used here, are terms of art that the Commission has used to include, among other things, requirements that all rates and practices be just and reasonable; prohibitions on unjust or unreasonable discrimination; tariffing requirements; accounting requirements; entry and exit restrictions; interconnection obligations; and unbundling or network-access requirements. *See, e.g.*, *IP-Enabled Services*, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4911-13, paras. 73-74 (2004) (*IP-Enabled Services NPRM*); *Policy and Rules Concerning Rates for Dominant Carriers*, Notice of Proposed Rulemaking, 2 FCC Rcd 5208, 5222, para. 4 n.5 (1987); *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, Further Notice of Proposed Rulemaking, 84 FCC 2d 445, 525, para. 19 (1981).

[731] We are not persuaded that preemption is contrary to section 706(a) of the 1996 Act, 47 U.S.C. § 1302(a), insofar as that provision directs state commissions (as well as this Commission) to promote the deployment of advanced telecommunications capability. *See, e.g.*, NARUC Comments at 2; Public Knowledge Reply at 27. For one thing, as discussed *infra*, we conclude that section 706 does not constitute an affirmative grant of regulatory authority, but instead simply provides guidance to this Commission and the state commissions on how to use any authority conferred by other provisions of federal and state law. *See infra* Part IV.B.3.a. For another, nothing in this order forecloses state regulatory commissions from promoting the goals set forth in section 706(a) through measures that we do not preempt here, such as by promoting access to rights-of-way under state law, encouraging broadband investment and deployment through state tax policy, and administering other generally applicable state laws. Finally, insofar as we conclude that section 706's goals of encouraging broadband deployment and removing barriers to infrastructure investment are best served by preempting state regulation, we find that section 706 *supports* (rather than prohibits) the use of preemption here.

[732] *Cf. Vonage Order*, 19 FCC Rcd at 22405, para. 1; *see also National Association of Regulatory Utility Commissioners Petition for Clarification or Declaratory Ruling that No FCC Order or Rule Limits State Authority to Collect Broadband Data*, Memorandum Opinion and Order, 25 FCC Rcd 5051, 5054, para. 9 (2010) (*NARUC Broadband Data Order*) ("Classifying broadband Internet access service as an information service . . . does not by itself preclude" all state measures, such as "[s]tate data-gathering efforts" that do not impose an undue burden or conflict with any federal policy, particularly where the Broadband Data Improvement Act acknowledged such state data collection). We thus conclude that our preemption determination is not contrary to section 414 of the Act,

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applicability of these general state laws is one of the considerations that persuade us that ISP conduct regulation is unnecessary here.[733] Nor do we deprive the states of any functions expressly reserved to them under the Act, such as responsibility for designating eligible telecommunications carriers under section 214(e);[734] exclusive jurisdiction over poles, ducts, conduits, and rights-of-way when a state certifies that it has adopted effective rules and regulations over those matters under section 224(c);[735] or authority to adopt state universal service policies not inconsistent with the Commission's rules under section 254.[736] We appreciate the many important functions served by our state and local partners, and we fully expect that the states will "continue to play their vital role in protecting consumers from fraud, enforcing fair business practices, for example, in advertising and billing, and generally responding to consumer inquiries and complaints" within the framework of this order.[737]

197. *Legal Authority.* We conclude that the Commission has legal authority to preempt inconsistent state and local regulation of broadband Internet access service on several distinct grounds.

198. First, the U.S. Supreme Court and other courts have recognized that, under what is known as the impossibility exception to state jurisdiction, the FCC may preempt state law when (1) it is impossible or impracticable to regulate the intrastate aspects of a service without affecting interstate communications and (2) the Commission determines that such regulation would interfere with federal regulatory objectives.[738] Here, both conditions are satisfied. Indeed, because state and local regulation of

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which states that "[n]othing in [the Act] shall in any way abridge or alter the remedies now existing at common law or by statute." 47 U.S.C. § 414; *see, e.g.*, Public Knowledge Reply at 27. Under this order, states retain their traditional role in policing and remedying violations of a wide variety of general state laws. *See Operator Service Providers of America Petition for Expedited Declaratory Ruling*, Memorandum Opinion and Order, 6 FCC Rcd 4475, 4477, para. 12 (1991) ("Section 414 of the Act preserves the availability against interstate carriers of such preexisting state remedies as tort, breach of contract, negligence, fraud, and misrepresentation—remedies generally applicable to all corporations operating in the state, not just telecommunications carriers." (footnote omitted)). The record does not reveal how our preemption here would deprive states of their ability to enforce any remedies that fall within the purview of section 414. In any case, a general savings clause like section 414 "do[es] not preclude preemption where allowing state remedies would lead to a conflict with or frustration of statutory purposes." *Exclusive Jurisdiction with Respect to Potential Violations of the Lowest Unit Charge Requirements of Section 315(b) of the Communications Act of 1934, As Amended*, Declaratory Ruling, 6 FCC Rcd 7511, 7513, para. 20 (1991).

[733] *See supra* Part C.3.

[734] *See* 47 U.S.C. § 214(e).

[735] *See* 47 U.S.C. § 224(c). We find no basis in the record to conclude that our preemption determination would interfere with states' authority to address rights-of-way safety issues. *See, e.g.*, CPUC Comments at 4-5 (discussing electrical safety requirements).

[736] *See* 47 U.S.C. § 254(h). We note that we continue to preempt any state from imposing any new state universal service fund contributions on broadband Internet access service. *See Title II Order*, 30 FCC Rcd at 5836-37, para. 490 n.1477.

[737] *Vonage Order*, 19 FCC Rcd at 22405, para. 1. *Cf.* ALEC Comments at 2-4 (discussing the role of state consumer protection laws); NARUC Comments at 4 (discussing "[s]tate authority to address service quality, fraud, issues of public health and safety/reliability, and universal service"); CPUC Reply at 13 (urging the Commission to preserve state authority to "advance universal service, protect the public safety and welfare, ensure the continued qualify of telecommunications services, [and] safeguard[] consumers' rights").

[738] *See, e.g.*, *Vonage Order*, 19 FCC Rcd at 22413-15, 22418-24, paras. 17-19, 23-32; *Minn. PUC*, 483 F.3d at 578-81. The "impossibility exception" was recognized by the Supreme Court in *Louisiana Public Service Commission v. FCC*, 476 U.S. 355, 375 n.4 (1986) ("FCC pre-emption of state regulation [has been] upheld where it was *not* possible to separate the interstate and intrastate components of the asserted FCC regulation."), and has been applied in circumstances analogous to those here, *e.g.*, *Minn. PUC*, 483 F.3d at 578-81; *California v. FCC*, 39 F.3d 919, 932-33 (9th Cir. 1994) (*California III*).

the aspects of broadband Internet access service that we identify would interfere with the balanced federal regulatory scheme we adopt today, they are plainly preempted.

199. As a preliminary matter, it is well-settled that Internet access is a jurisdictionally interstate service because "a substantial portion of Internet traffic involves accessing interstate or foreign websites."[739] Thus, when the Commission first classified a form of broadband Internet access service in the *Cable Modem Order*, it recognized that cable Internet service is an "interstate information service."[740] Five years later, the Commission reaffirmed the jurisdictionally interstate nature of broadband Internet access service in the *Wireless Broadband Internet Access Order*.[741] And even when the *Title II Order* reclassified broadband Internet access service as a telecommunications service, the Commission continued to recognize that "broadband Internet access service is jurisdictionally interstate for regulatory purposes."[742] The record continues to show that broadband Internet access service is predominantly interstate because a substantial amount of Internet traffic begins and ends across state lines.[743]

200. Because both interstate and intrastate communications can travel over the same Internet connection (and indeed may do so in response to a single query from a consumer), it is impossible or impracticable for ISPs to distinguish between intrastate and interstate communications over the Internet or to apply different rules in each circumstance. Accordingly, an ISP generally could not comply with state or local rules for intrastate communications without applying the same rules to interstate communications.[744] Thus, because any effort by states to regulate intrastate traffic would interfere with the Commission's treatment of interstate traffic, the first condition for conflict preemption is satisfied.[745]

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[739] *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1, 5 (D.C. Cir. 2000) (quoting *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic*, Declaratory Ruling, 14 FCC Rcd 3689, 3701-02, para. 18 (1999)); *see also NARUC Broadband Data Order*, 25 FCC Rcd at 5054 n.24 ("Although the Commission has acknowledged that broadband Internet access service traffic may include an intrastate component, it has concluded that broadband Internet access service is properly considered jurisdictionally interstate for regulatory purposes."); *High-Cost Universal Service Support et al.*, Order on Remand, 24 FCC Rcd 6475, 6496 n.69 (2008) ("[S]ervices that offer access to the Internet are jurisdictionally interstate services. . . . [T]he Commission has reaffirmed this ruling for a variety of broadband Internet access services.") (collecting authorities).

[740] *Cable Modem Order*, 17 FCC Rcd at 4832, para. 59.

[741] *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5911, para. 28.

[742] *Title II Order*, 30 FCC Rcd at 5803, para. 431.

[743] *See, e.g.*, Cox Comments at 35-37; Comcast Comments at 78-82; CTIA Comments at 54-55; NCTA Comments at 65; T-Mobile Comments at 25-26; Mobile Future Reply at 15.

[744] *Cf. California III*, 39 F.3d at 932 (upholding preemption where "the FCC determined that it would not be economically feasible . . . to offer the interstate portion of [enhanced] services on an integrated basis while maintaining separate facilities and personnel for the intrastate portion"); *Vonage Order*, 19 FCC Rcd at 22419-21, para. 25 (discussing the difficulty of distinguishing intrastate and interstate communications over IP-based services); *see also* CTIA Comments at 57 ("While there likely are some slivers of broadband communications that do not cross state boundaries, it would be impossible to apply state regulation to those bits without affecting interstate traffic and thereby interfering with federal aims."); T-Mobile Comments at 26 ("During the course of a [single] fixed broadband connection, a user in one state will almost surely interact many times with information stored in other states and other nations. A mobile broadband communication involves that as well, [and] adds the possibility that the user herself will transit between or among states during the course of a single session."); CTIA Reply at 17 ("[F]ederal preemption is appropriate where, as here, it would be impossible to apply state regulation to this interstate offering without interfering with federal aims."); USTelecom Reply at 22 ("[T]he architecture of the Internet makes it impossible to separate the interstate and intrastate aspects of broadband service. . . . [O]ne could not plausibly offer a separate intrastate broadband internet access service."). We therefore reject the view that the impossibility exception to state jurisdiction does not apply because some aspects of broadband Internet access service could theoretically be regulated differently in different states. *Cf.* Public Knowledge Comments, CG Docket

(continued….)

201. The second condition for the impossibility exception to state jurisdiction is also satisfied. For the reasons explained above, we find that state and local regulation of the aspects of broadband Internet access service that we identify would interfere with the balanced federal regulatory scheme we adopt today.[746]

202. Second, the Commission has independent authority to displace state and local regulations in accordance with the longstanding federal policy of nonregulation for information services.[747] For more than a decade prior to the 1996 Act, the Commission consistently preempted state regulation of information services (which were then known as "enhanced services").[748] When Congress adopted the

(Continued from previous page)
No. 17-131, at 3 (June 16, 2017). Even if it were possible for New York to regulate aspects of broadband service differently from New Jersey, for example, it would not be possible for New York to regulate the use of a broadband Internet connection for *intrastate communications* without also affecting the use of that same connection for *interstate communications*. The relevant question under the impossibility exception is not whether it would be possible to have separate rules in separate states, but instead whether it would be feasible to allow separate state rules for intrastate communications while maintaining uniform federal rules for interstate communications.

[745] OTI insists that broadband service "can easily be separated into interstate and intrastate" communications based on "the location of the ISP." Letter from Chris Laughlin, Counsel for New America's Open Technology Institute, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 3 (filed Dec. 7, 2017) (OTI Dec. 7 *Ex Parte* Letter). In OTI's view, if "the closest ISP headend, tower, or other facility to the customer" is in the same state as the customer, then the customer's Internet communications are all intrastate. *Id.* This view misapprehends the end-to-end analysis employed by the Communications Act to distinguish interstate and intrastate communications, which looks to where a communication ultimately originates and terminates—such as the server which hosts the content the consumer is requesting—rather than to intermediate steps along the way (such as the location of the ISP). *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic*, Declaratory Ruling, 14 FCC Rcd 3689, 3697-98, para. 12 (1999) ("Consistent with [our] precedents, we conclude . . . that the communications at issue here do not terminate at the ISP's local server, . . . but continue to the ultimate destination or destinations, specifically at a[n] Internet website that is often located in another state. The fact that the facilities and apparatus used to deliver traffic to the ISP's local servers may be located within a single state does not affect . . . jurisdiction. . . . Thus, we reject [the] assertion that the . . . facilities used to deliver traffic to ISPs must cross state boundaries for such traffic to be classified as interstate." (footnotes omitted)). Indeed, OTI's view that a communication is intrastate whenever the "last mile" facilities between the customer and the communications carrier are within the same state would improperly deem virtually all communications to be intrastate, including interstate telephone calls, contrary to long-settled precedent. *See id.* at 3696-97, para. 11 (discussing *Teleconnect Co. v. Bell Tel. Co. of Pa.*, Memorandum Opinion and Order, 10 FCC Rcd 1626, 1628-30, paras. 9-15 (1995), *pets. for review denied*, *Sw. Bell Tel. Co. v. FCC*, 116 F.3d 593 (D.C. Cir. 1997)).

[746] *See supra* para. 194.

[747] *See generally Pulver Order*, 19 FCC Rcd at 3316-23, paras. 15-25 (discussing the federal policy of nonregulation for information services).

[748] *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Memorandum Opinion and Order on Further Reconsideration, 88 F.C.C.2d 512, 541 n.34 (1981) ("[W]e have . . . preempted the states in two respects. . . . [W]e have determined that the provision of enhanced services is not a common carrier public utility offering and that efficient utilization and full exploitation of the interstate telecommunications network would best be achieved if these services are free from public utility-type regulation. . . . States, therefore, may not impose common carrier tariff regulation on a carrier's provision of enhanced services."), *pets. for review denied*, *Comput. & Commc'ns Indus. Ass'n v. FCC*, 693 F.2d 198, 206-07, 209, 214-18 (D.C. Cir. 1982) (*CCIA*); *Computer III Phase I Order*, 104 FCC 2d at 1125, para. 343 ("In the *Computer II* proceeding . . . . we preemptively deregulated enhanced services, foreclosing the possibility of state regulation of such offerings."), *as modified*, *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, Report and Order, 6 FCC Rcd 7571, 7625-37, paras. 110-131 (1991), *pets. for review denied*, *California III*, 39 F.3d at 931-33; *see also Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry) et al.*, Memorandum Opinion and Order on Reconsideration, 2 FCC Rcd 3035, 3061 n.374 (1987) ("State public utility regulation of entry and service terms and conditions (including rates

(continued….)

Commission's regulatory framework and its deregulatory approach to information services in the 1996 Act, it thus embraced our longstanding policy of preempting state laws that interfere with our federal policy of nonregulation.[749]

203. Multiple provisions enacted by the 1996 Act confirm Congress's approval of our preemptive federal policy of nonregulation for information services. Section 230(b)(2) of the Act, as added by the 1996 Act, declares it to be "the policy of the United States" to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services"—including "any information service"—"unfettered by Federal or State regulation."[750] The Commission has observed that this provision makes clear that "federal authority [is] preeminent in the area of information services" and that information services "should remain free of regulation."[751] To this same end, by directing that a communications service provider "shall be treated as a common carrier under [this Act] only to the extent that it is engaged in providing telecommunications services," section 3(51)—also added by the 1996 Act—forbids any common-carriage regulation, whether federal or state, of information services.[752]

204. Finally, our preemption authority finds further support in the Act's forbearance provision. Under Section 10(e) of the Act, Commission forbearance determinations expressly preempt any contrary state regulatory efforts.[753] It would be incongruous if state and local regulation were preempted when the Commission decides to forbear from a provision that would otherwise apply, or if the Commission adopts a regulation and then forbears from it, but not preempted when the Commission determines that a requirement does not apply in the first place. Nothing in the Act suggests that Congress intended for state

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and feature availability), ostensibly applied to 'intrastate' enhanced services, would have a severe impact on, and would effectively negate, federal policies promoting competition and open entry in the interstate markets for such services."); *CCIA*, 693 F.2d at 214 ("Courts have consistently held that when state regulation of [communications] equipment or facilities would interfere with achievement of a federal regulatory goal, the Commission's jurisdiction is paramount and conflicting state regulation must necessarily yield to the federal regulatory scheme.") (footnotes omitted).

[749] *See City of New York v. FCC*, 486 U.S. 57, 66-70 (1988) (holding that because the Commission had preempted all state and local regulation of cable television signal quality for 10 years before the passage of the Cable Communications Policy Act of 1984, and the Cable Act generally adopted the same regulatory framework that the Commission had been following, Congress implicitly approved the Commission's authority to preempt these laws). Contrary to the suggestions of some commenters, the Supreme Court has held, in cases involving the Communications Act, that no express authorization or other specific statutory language is required for the Commission to preempt state law. *See id.* at 64 ("[A] pre-emptive regulation's force does not depend on express congressional authorization to displace state law. . . . [I]f the agency's choice to pre-empt represents a reasonable accommodation of conflicting policies that were committed to the agency's care by statute, [it] should not [be] disturb[ed] . . . unless it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned." (internal quotation marks omitted)); *Louisiana Pub. Serv. Comm'n*, 476 U.S. at 375 n.4 (recognizing implicit FCC preemption authority under the impossibility exception to state jurisdiction). And because the Supreme Court has interpreted the Communications Act to authorize the Commission to supersede state law in many respects, we reject the contention that any presumption against preemption controls here. *See Puerto Rico v. Franklin Cal. Tax-Free Trust*, 136 S. Ct. 1938, 1946 (2016) (once Congress has decided to preempt state law, "we do not invoke any presumption against pre-emption" in disputes over the *scope* of preemption); *Smiley v. Citibank (S.D.), N.A.*, 517 U.S. 735, 743-44 (1996) (distinguishing "the question of the substantive (as opposed to pre-emptive) *meaning* of a statute" from "the question *whether* a statute is pre-emptive" and rejecting the view that a presumption against preemption "in effect trumps *Chevron*").

[750] 47 U.S.C. § 230(b)(2), (f)(2).

[751] *Pulver Order*, 19 FCC Rcd at 316, para. 16; *see also Vonage Order*, 19 FCC Rcd at 22425-26, paras. 34-35.

[752] 47 U.S.C. § 153(51)

[753] 47 U.S.C. § 160(e).

or local governments to be able to countermand a federal policy of nonregulation or to possess any greater authority over broadband Internet access service than that exercised by the federal government.[754]

8. Disability Access Provisions

205. The Communications Act provides the Commission with authority to ensure that consumers with disabilities can access broadband networks regardless of whether broadband Internet access service is classified as telecommunications service or information service. The Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA)[755] already applies a variety of accessibility requirements to broadband Internet access service.[756] In particular, to ensure that people with disabilities have access to the communications technologies of the Twenty-First Century, the CVAA added several provisions to the Communications Act, including Section 716 of the Act,[757] which requires that providers of advanced communications services (ACS)[758] and manufacturers of equipment used for ACS make their services and products accessible to people with disabilities, unless it is not achievable to do so.[759] These mandates already apply according to their terms in the context of broadband Internet access service.[760] The CVAA also adopted a requirement, in section 718, that ensures access to Internet browsers in wireless phones for people who are blind and visually impaired.[761] In addition, the CVAA directed the Commission to enact regulations to prescribe, among other things, that networks used to provide ACS "may not impair or impede the accessibility of information content when accessibility has been incorporated into that content for transmission through . . . networks used to provide [ACS]."[762] Finally, new section 717 creates new enforcement and recordkeeping requirements applicable to sections 255, 716, and 718.[763] Section 710 of the Act addressing hearing aid compatibility and implementing rules

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[754] Some commenters note that section 253(c), 47 U.S.C. § 253(c), preserves certain state authority over telecommunications services. But that provision has no relevance here, given our finding that broadband Internet access service is an information service. Although section 253(c) recognizes that states have historically played a role in regulating telecommunications services, there is no such tradition of state regulation of information services, which have long been governed by a federal policy of nonregulation.

[755] Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (codified in various sections of Title 47) (CVAA), *amended by* Pub. L. No. 111-265, 124 Stat. 2795 (2010) (technical corrections).

[756] *Title II Order*, 30 FCC Rcd at 5828, para. 473. Congress adopted the CVAA after recognizing that "Internet-based and digital technologies . . . driven by growth in broadband . . . are now pervasive, offering innovative and exciting ways to communicate and share information." S. Rep. No. 111-386, at 1 (2010); H.R. Rep. No. 111-563, at 19 (2010). Congress thus clearly had Internet-based communications technologies in mind when enacting the accessibility provisions of Section 716 (as well as the related provisions of sections 717-718) and in providing important protections with respect to advanced communications services (ACS).

[757] 47 U.S.C. § 617(f) ("The requirements of this section shall not apply to any equipment or services, including interconnected VoIP service, that are subject to the requirements of section 255 of this title on the day before October 8, 2010. Such services and equipment shall remain subject to the requirements of section 255 of this title.").

[758] ACS means: "(A) interconnected VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; and (D) interoperable video conferencing service." 47 U.S.C. § 153(1).

[759] *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al.*, CG Docket No. 10-213 et al., Second Report and Order, 28 FCC Rcd 5957, para. 1 (2013) (*Section 716 Implementation Order*).

[760] *Section 716 Implementation Order*, 28 FCC Rcd at 5960-61, para. 7.

[761] 47 U.S.C. §§ 617, 619.

[762] 47 U.S.C. § 617(e)(1)(B); *see also* 47 CFR § 14.20(c).

[763] 47 U.S.C. § 618.

enacted thereunder also apply regardless of any action taken in this Order.[764] To the extent that other accessibility issues arise,[765] we will address those issues in separate proceedings in furtherance of our statutory authority to ensure that broadband networks are accessible to and usable by individuals with disabilities.[766]

9. Continued Applicability of Title III Licensing Provisions

206. We also note that our decision today to classify wireless broadband Internet access service as an information service does not affect the general applicability of the spectrum allocation and licensing provisions of Title III and the Commission's rules to this service.[767] Title III generally provides the Commission with authority to regulate "radio communications" and "transmission of energy by radio."[768] Among other provisions, Title III gives the Commission the authority to adopt rules preventing interference and allows it to classify radio stations.[769] It also establishes the basic licensing scheme for radio stations, allowing the Commission to grant, revoke, or modify licenses.[770] Title III further allows the Commission to make such rules and regulations and prescribe such restrictions and conditions as may be necessary to carry out the provisions of the Act.[771] Provisions governing access to and use of spectrum (and their corresponding Commission rules) do not depend on whether the service using the spectrum is classified as a telecommunications or information service under the Act.

IV. A LIGHT-TOUCH FRAMEWORK TO RESTORE INTERNET FREEDOM

207. For decades, the lodestar of the Commission's approach to preserving Internet freedom was a light-touch, market-based approach. This approach debuted at the dawn of the commercial Internet during the Clinton Administration, when an overwhelming bipartisan consensus made it national policy to preserve a digital free market "unfettered by Federal or State regulation."[772] It continued during the Bush Administration, as reflected in the "Four Freedoms" articulated by Chairman Powell in 2004 and was then formally adopted by a unanimous Commission in 2005 as well as in a series of classification decisions reviewed above.[773] And it continued for the first six years of the Obama Administration. We reaffirm and

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[764] *See generally* 47 U.S.C. § 610; *see also Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets; Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets,* Fourth Report and Order and Notice of Proposed Rulemaking, 15 FCC Rcd 13845, 13846, para. 2 (2015).

[765] *See, e.g.*, CPUC Comments at 25-26; CTAB Comments at 8; TDI et al. Comments at 2-7; Public Knowledge Comments at 95.

[766] *See* CenturyLink Comments at 60; ACA Reply at 30.

[767] *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5914-15, paras. 35-37. These provisions and rules continue to apply because the service is using radio spectrum.

[768] *See* Title III - Provisions Relating to Radio, 47 U.S.C. § 301 et seq.; *see also IP-Enabled Services NPRM*, 19 FCC Rcd at 4918.

[769] 47 U.S.C. §§ 302, 303.

[770] 47 U.S.C. §§ 307-309, 312, 316.

[771] 47 U.S.C. § 303(r). *See, e.g.*, *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Memorandum Opinion and Order on Reconsideration, 14 FCC Rcd 16340, 16452, para. 27 (1999).

[772] 47 U.S.C. § 230(b)(2).

[773] These include the freedoms for consumers to (1) "access the lawful Internet content of their choice"; (2) "run applications and use services of their choice, subject to the needs of law enforcement"; (3) "connect their choice of legal devices that do not harm the network"; and (4) "enjoy competition among network providers, application and service providers, and content providers." *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 5; *see also Powell Speech* (announcing four principles for Internet freedom to further ensure that the Internet would remain a place for free and open innovation with minimal regulation).

honor this longstanding, bipartisan commitment by adopting a light-touch framework that will preserve Internet freedom for all Americans.

208. To implement that light-touch framework, we next reevaluate the rules and enforcement regime adopted in the *Title II Order*. That reevaluation is informed—as it must be—by the return of jurisdiction to the Federal Trade Commission to police ISPs for anticompetitive acts or unfair and deceptive practices. Against that backdrop, we first decide to retain the transparency rule adopted in the *Open Internet Order* with slight modifications. History has shown that transparency is critical to openness—consumers and entrepreneurs are not afraid to make their voices heard when ISPs engage in practices to which they object. And we conclude that preexisting federal protections—alongside the transparency rule we adopt today—are not only sufficient to protect Internet freedom, but will do so more effectively and at lower social cost than the *Title II Order*'s conduct rules. In short, we believe the light-touch framework we adopt today will pave the way for additional innovation and investment that will facilitate greater consumer access to more content, services, and devices, and greater competition.

A. Transparency

209. "Sunlight," Justice Brandeis famously noted, "is . . . the best of disinfectants."[774] This is the case in our domain. Properly tailored transparency disclosures provide valuable information to the Commission to enable it to meet its statutory obligation to observe the communications marketplace to monitor the introduction of new services and technologies, and to identify and eliminate potential marketplace barriers for the provision of information services.[775] Such disclosures also provide valuable information to other Internet ecosystem participants;[776] transparency substantially reduces the possibility that ISPs will engage in harmful practices, and it incentivizes quick corrective measures by providers if problematic conduct is identified.[777] Appropriate disclosures help consumers make informed choices about their purchase and use of broadband Internet access services.[778] Moreover, clear disclosures improve consumer confidence in ISPs' practices while providing entrepreneurs and other small businesses the information they may need to innovate and improve products.

210. Today, we commit to balanced ISP transparency requirements based on a sound legal footing. We return, with minor adjustments, to the transparency rule adopted in the 2010 *Open Internet Order*,[779] which provides consumers and the Commission with essential information while minimizing the burdens imposed on ISPs. In so doing, we modify the existing transparency rule to eliminate many of the burdensome additional reporting obligations adopted by the Commission in the *Title II Order.*[780] We find that those additional obligations do not benefit consumers, entrepreneurs, or the Commission sufficiently to outweigh the burdens imposed on ISPs. The transparency rule we adopt will aid the Commission in "identifying . . . market entry barriers for entrepreneurs and other small businesses in the provision and

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[774] Louis Brandeis, Other People's Money, Chapter 5 (National Home Library Foundation ed. 1933), *available at* http://louisville.edu/law/library/special-collections/the-louis-d.-brandeis-collection/other-peoples-money-by-louis-d.-brandeis.

[775] 47 U.S.C. § 257.

[776] *See, e.g.*, Apple Reply at 3; Internet Association Comments at 30-31.

[777] *See, e.g.*, R Street Comments at 28-29.

[778] *See, e.g.*, American Association of Law Libraries et al. Comments at 17; Comcast Comments at 53-54; TDI et al. Comments at 7; CWA/NAACP Comments at 18; Microsoft Comments at 15; R Street Comments at 28-29; Apple Reply at 3; *see also* TDI et al. Comments at 8 (explaining that transparency will help ensure that consumers with disabilities can better understand how ISPs' plans, terms, and practices will affect their ability to use the applications and services of their choice).

[779] *Open Internet Order*, 25 FCC Rcd at 17936-41, 17959, paras. 53-61, 98.

[780] *Title II Order*, 30 FCC Rcd at 5669-82, paras. 154-84.

ownership of . . . information services."[781] We also conclude that our transparency rule readily survives First Amendment scrutiny. The disclosure requirements we adopt apply to both fixed and mobile ISPs.

1. History of the Transparency Rule

211. *The Open Internet Order.* The transparency rule, first adopted in the *Open Internet Order*, requires both fixed and mobile ISPs to "publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices."[782] In addition, the *Open Internet Order* provided guidance on both what information should be disclosed and how those disclosures should be made.[783] The Commission described the types of information that should be included in each category, but emphasized the importance of flexibility in implementing the rule, making clear that "effective disclosures will likely include some or all" of the listed types of information.[784] Though the other rules adopted in the *Open Internet Order* were overturned, the D.C. Circuit upheld the transparency rule in *Verizon*.[785]

212. *2011 Advisory Guidance.* On June 30, 2011, the Enforcement Bureau and Office of General Counsel released guidance "regarding specific methods of disclosure that will be considered to comply with the transparency rule,"[786] addressing concerns about the scope of required disclosures and potential burdens on small providers. The *2011 Advisory Guidance* provided detail on methods for disclosure of actual performance metrics, and the contents of the disclosures regarding network practices, performance characteristics, and commercial terms, and clarified the requirement that disclosures be made "at the point of sale."[787] The *2011 Advisory Guidance* clarified that disclosure of the information listed in paragraphs 56 and 98 of the *Open Internet Order* was sufficient to satisfy the transparency rule notwithstanding the *Open Internet Order*'s assertion that the list was "not necessarily exhaustive, nor is it a safe harbor."[788]

213. *2014 Advisory Guidance.* In July 2014, in the wake of the *Verizon* decision, the Enforcement Bureau issued further guidance emphasizing the importance of consistency between an ISP's disclosures under the transparency rule and that provider's advertising claims or other public statements. The *2014 Advisory Guidance* explained that the transparency rule "prevents a broadband

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[781] 47 U.S.C. § 257(a).

[782] *Open Internet Order*, 25 FCC Rcd at 17937, para. 54.

[783] *Id.* at 17938-40, 17959, paras. 56-57, 98.

[784] *Id.*

[785] *Verizon v. FCC*, 740 F.3d at 659.

[786] *FCC Enforcement Bureau and Office of General Counsel Issue Advisory Guidance for Compliance with Open Internet Transparency Rule*, WC Docket No. 09-191, Public Notice, 26 FCC Rcd 9411, 9411 (EB/OGC 2011) (*2011 Advisory Guidance*).

[787] *Id.*

[788] *Id*. at 9416. Paragraph 56 of the *Open Internet Order* provided the following non-exhaustive list of disclosures: network practices, including congestion management, application-specific behavior, device attachment rules, and security; performance characteristics, including a service description and the impact of specialized services; and commercial terms, including pricing, privacy policies, and redress options. *Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56. Paragraph 98 made clear that mobile ISPs must comply with the transparency requirements and states that such providers must "disclose their third-party device and application certification procedures, if any"; "clearly explain their criteria for any restrictions on use of their network"; and "expeditiously inform device and application providers of any decisions to deny access to the network or of a failure to approve their particular devices or applications." *Open Internet Order*, 25 FCC Rcd at 17959, para. 98.

Internet access provider from making assertions about its service that contain errors, are inconsistent with the provider's disclosure statement, or are misleading or deceptive."[789]

214. *Title II Order*. In the *Title II Order*, the Commission broadened the transparency rule's requirements by interpreting the rule to mandate certain additional reporting obligations it termed "enhancements."[790] These additional reporting obligations, although falling within the same broad categories as those listed in the *Open Internet Order*, required that providers include far greater technical detail in their disclosures. For example, all ISPs, except small providers exempt under the *Small Provider Waiver Order*,[791] were required to make specific disclosures regarding the commercial terms (including specific information regarding prices and fees),[792] performance characteristics (including, for example, packet loss and a requirement that these disclosures be reasonably related to the performance a consumer could expect in the geographic area in which they are purchasing service),[793] and network practices (including, for example, application and user-based practices)[794] of the broadband Internet access services they offer. The *Title II Order* also established a safe harbor for the form and format of disclosures intended for consumers and delegated development of the format to the agency's Consumer Advisory Committee (CAC).[795] The *2016 Advisory Guidance*, released on delegated authority, provided examples

[789] *FCC Enforcement Advisory, Open Internet Transparency Rule: Broadband Providers Must Disclose Accurate Information to Protect Consumers*, Public Notice, 29 FCC Rcd 8606, 8607 (2014) (*2014 Advisory Guidance*).

[790] *Title II Order*, 30 FCC Rcd at 5672, para. 162.

[791] *Small Business Exemption From Open Internet Enhanced Transparency Requirements*, GN Docket No. 14-28, Order, 32 FCC Rcd 1772 (2017) (*Small Provider Waiver Order*).

[792] The *Title II Order* retained the requirement that providers disclose privacy policies and redress options and provides greater specificity with regard to the required pricing disclosure. The *Title II Order* required that providers must disclose both the price—which includes the full monthly service charge as well as clear notation of, and information regarding, any promotional rate, including the full monthly charge after the termination of the promotion—as well as any other one time or recurring fees or surcharges the consumer may be charged. In addition, the *Title II Order* mandated disclosure of data caps and allowances. *Title II Order*, 30 FCC Rcd at 5672-73, para. 164.

[793] The *Open Internet Order*, read together with the *2011 Advisory Guidance*, limited the performance characteristic disclosures to a service description ("[a] general description of the service, including the service technology, expected and actual access speed and latency, and the suitability of the service for real-time applications") and the impact of specialized services. *Open Internet Order*, 25 FCC Rcd at 17939, para. 56; *2011 Advisory Guidance*, 26 FCC Rcd at 9416. The *Title II Order's* additional reporting obligations expanded on these requirements, adding the disclosure of packet loss; the requirement that "actual network performance data should be reasonably related to the performance the consumer would likely experience in the geographic area in which the consumer is purchasing service . . . measured in terms of average performance over a reasonable period of time and during times of peak usage"; and the requirement that performance disclosures be "for each broadband service," requiring mobile ISPs to make specific disclosures for each technology. *Title II Order*, 25 FCC Rcd at 5674-75, paras. 165-166.

[794] The *Open Internet Order* included specific disclosures related to congestion management, application-specific behavior, device attachment rules, and security. *Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56. The *Title II Order* maintained these as required disclosures, but additionally required disclosure of any practices "applied to traffic associated with a particular user or user group, including any application-agnostic degradation of service to a particular end user." It also demanded greater specificity regarding the types of information that must be included in disclosures of application-based or user-based practices. *Title II Order*, 25 FCC Rcd at 5676-77, para. 169.

[795] *Id*. at 5679-81, paras. 176-81. The Consumer and Governmental Affairs, Wireline Competition, and Wireless Telecommunications Bureaus approved the CAC's proposed labels on April 4, 2016 pursuant to authority delegated to the Bureaus in the *Title II Order*. *Consumer and Governmental Affairs, Wireline Competition, and Wireless Telecommunications Bureaus Approve Open Internet Broadband Consumer Labels*, Public Notice, 31 FCC Rcd 3358 (2016).

of acceptable methodologies for disclosure of performance characteristics and offered guidance regarding compliance with the point of sale requirement.[796]

2. Refining the Transparency Rule

215. Today, we retain the transparency rule as established in the *Open Internet Order*, with some modifications, and eliminate the additional reporting obligations of the *Title II Order*. We find many of those additional reporting obligations significantly increased the burdens imposed on ISPs without providing countervailing benefits to consumers or the Commission.[797] As a result, we recalibrate the requirements under the transparency rule. Specifically, we adopt the following rule:

> *Any person providing broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient to enable consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings. Such disclosure shall be made via a publicly available, easily accessible website or through transmittal to the Commission.*[798]

216. In doing so, we note that the record overwhelmingly supports retaining at least some transparency requirements.[799] Crucially, the transparency rule will ensure that consumers have the

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[796] For example, the guidance notes that for many fixed providers, performance is likely to be consistent across the provider's footprint so long as the same technology is deployed and that in such a case a single disclosure for the full service area may be sufficient. By contrast, mobile performance may vary, and the guidance suggested the use of CMA as an appropriate geographic area on which to base disclosures. *Guidance on Open Internet Transparency Requirements*, Public Notice 31 FCC Rcd 5330 (2016) (*2016 Advisory Guidance*).

[797] *See, e.g.*, ADTRAN Comments at 26-27; AT&T Comments at 11, n.7; CenturyLink Comments at 35; Comcast Comments at 58-59; CTIA Comments at 18; Cox Comments at 26; Frontier Comments at 12; Sprint Comments at 13, 16; T-Mobile Comments at 18; WISPA Comments at 43; Alamo Broadband Reply at 2; CTIA Reply at 2, 43.

[798] For purposes of these rules, "consumer" includes any subscriber to the ISP's broadband Internet access service, and "person" includes any "individual, group of individuals, corporation, partnership, association, unit of government or legal entity, however organized." *Cf.* 47 CFR § 54.8(a)(6).

[799] *See, e.g.*, AARP Comments at 47; ACA Comments at 76-77; ADTRAN Comments at 26-27; American Association of Community Colleges Comments at 18-19; American Association of Law Libraries et al. Comments at 17; Asian Pacific American Institute of Congressional Studies et al. Comments at 13-14; AT&T Comments at 11; Atty's General Comments at 4, 21-22; Cogent Comments at 25-26; Comcast Comments at 53-54, 58-59; CWA/NAACP Comments at 3-4, 17-18; Consumers Union Comments at 16-17; Cox Comments at 26; CTIA Comments at 18-21; David W. Quist Comments at 1; ESA Comments at 12; Free Press Comments at 70-71; HTTP Comments at 2; Illinois Department of Innovation and Technology Comments at 1-2; Independent Film & Television Alliance Comments at 4-5; Information Technology Industry Council (ITIC) Comments at 5; Internet Association Comments at 30-31; John Harrington Comments at 1; LGBT Technology Partnership Comments at 3; Mergen Comments at 1; Microsoft Comments at 15; New Media Rights Comments at 13; Nominum Comments at 6; Pat Welch Comments at 5; R Street Comments at 28-29; Sprint Comments at 13, 15-16; TDI et al. Comments at 7-8; T-Mobile Comments at 18; Verizon Comments at 4, 19; WISPA Comments at 43; WTA Comments at 11, 13; City and County of San Francisco Reply at 4; ACA Reply at 34; ADTRAN Reply at 6-7; Apple Reply at 3; Association of Research Libraries Reply at 11; AT&T Reply at 11-12; County of Santa Clara Reply at 2, 8, 11; CTIA Reply at 2; David Choffnes Reply at 4; INCOMPAS Reply at 43; Verizon Reply at 5, 21; Software and Information Industry Alliance Reply at 5, 7-9; TechFreedom Reply at 84, 86, 98; OTI New America Reply at 28, n. 82; Nominum Reply at 7; Internet Association Reply at 20; Letter from Ted Winterer, Mayor, City of Santa Monica, to Ajit Pai, Chairman, FCC, WC Docket No. 17-108, at 1 (filed Jul. 10, 2017). We reject commenter assertions that we should not maintain any transparency requirements. *See, e.g.*, CenturyLink Comments at 34-35 (stating that "[a]rguably, even the more onerous aspects of the transparency rules adopted by the 2010 Open Internet Order went too far"); ICLE Policy Reply at 42 (suggesting that public disclosure without a rule would be sufficient). CenturyLink does not identify which requirements from the 2010 transparency rule it believes could arguably be "onerous." Further, as discussed above, we find that a transparency requirement is necessary and sufficient to protect Internet openness,

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information necessary to make informed choices about the purchase and use of broadband Internet access service, which promotes a competitive marketplace for those services. Disclosure supports innovation, investment, and competition by ensuring that entrepreneurs and other small businesses have the technical information necessary to create and maintain online content, applications, services, and devices, and to assess the risks and benefits of embarking on new projects.[800]

217. What is more, disclosure increases the likelihood that ISPs will abide by open Internet principles by reducing the incentives and ability to violate those principles,[801] that the Internet community will identify problematic conduct, and that those affected by such conduct will be in a position to make informed competitive choices or seek available remedies for anticompetitive, unfair, or deceptive practices.[802] Transparency thereby "increases the likelihood that harmful practices will not occur in the first place and that, if they do, they will be quickly remedied."[803] We apply our transparency rule to broadband Internet access service, as well as functional equivalents or any service that is used to evade the transparency requirements we adopt today.[804]

a. Content of Required Disclosures

218. We require ISPs to prominently disclose network management practices, performance, and commercial terms of their broadband Internet access service, and find substantial record support (including from ISPs) for following the course set out by the *Open Internet Order*.[805] We find that the elements of the transparency rule we adopt today help consumers make the most educated decision as to which ISP to choose and keep entrepreneurs and other small businesses effectively informed of ISP practices so that they can develop, market, and maintain Internet offerings. Although we agree with the *Open Internet Order* that "the best approach is to allow flexibility in implementation of the transparency rule,"[806] we describe the specific requirements to guide ISPs and ensure that consumers, entrepreneurs, and other small businesses receive sufficient information to make our rule effective.

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given that we lack authority to adopt conduct rules and in addition find that an enforceable transparency rule obviates the need for bright line conduct rules. *See infra* paras. 240-245.

[800] *Open Internet Order*, 25 FCC Rcd at 17936, para. 53; *see also* Internet Association Comments at 30-31; Apple Reply at 3; *cf.* ESA Comments at 12 (explaining that transparency regarding network management practices allows content providers to make informed decisions when choosing their broadband service); R Street Comments at 28-29 (asserting that the broadband market will function better "if edge providers have clear guidance on how to conform their services to match broadband providers' traffic management practices").

[801] *See, e.g.*, AT&T Comments at 3; Sprint Comments at 13-14.

[802] *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53; *see also* R Street Comments at 28-29; Free Press Comments at 71 ("Consumer advocates and watchdogs cannot file complaints if they do not have access to information about broadband providers practices.").

[803] *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53.

[804] As the Commission explained in the *Open Internet Order*, "a key factor in determining whether a service is used to evade the scope of the rules is whether the service is used as a substitute for broadband Internet access service. For example, an Internet access service that provides access to a substantial subset of Internet endpoints based on end users' preference to avoid certain content, applications, or services; Internet access services that allow some uses of the Internet (such as access to the World Wide Web) but not others (such as email); or a 'Best of the Web' Internet access service that provides access to 100 top websites could not be used to evade the open Internet rules applicable to 'broadband Internet access service.'" *Open Internet Order*, 25 FCC Rcd at 17933, para. 47 (citations omitted). We caution ISPs that they may not evade application of the transparency rule "simply by blocking end users' access to some Internet points." *Id.*

[805] *See id*. at 17938-39, paras. 56-57; *see, e.g.*, ADTRAN Comments at 26-27; AT&T Comments at 11, n.7; Comcast Comments at 58-59; Cox Comments at 26; CTIA Comments at 18, 21; CTIA Reply at 43; T-Mobile Comments at 18; WTA Comments at 11.

[806] *Open Internet Order*, 25 FCC Rcd at 17938, para. 56.

219. *Network Management Practices.* In the *Open Internet Order*, the Commission required ISPs to disclose their congestion management, application-specific behavior, device attachment rules, and security practices.[807] We adopt those same requirements and further require ISPs to disclose any blocking, throttling, affiliated prioritization, or paid prioritization in which they engage. Although requiring disclosure of network management practices imposes some burden on ISPs,[808] we find the benefits of enabling the public and the Commission to identify any problematic conduct and suggest fixes substantially outweigh those costs. The record generally supports disclosure of ISP network practices.[809]

220. We specifically require all ISPs to disclose:

- *Blocking.* Any practice (other than reasonable network management elsewhere disclosed) that blocks or otherwise prevents end user access to lawful content, applications, service, or non-harmful devices, including a description of what is blocked.
- *Throttling*. Any practice (other than reasonable network management elsewhere disclosed) that degrades or impairs access to lawful Internet traffic on the basis of content, application, service, user, or use of a non-harmful device, including a description of what is throttled.
- *Affiliated Prioritization.* Any practice that directly or indirectly favors some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, or resource reservation, to benefit an affiliate, including identification of the affiliate.
- *Paid Prioritization.* Any practice that directly or indirectly favors some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, or resource reservation, in exchange for consideration, monetary or otherwise.[810]
- *Congestion Management*. Descriptions of congestion management practices, if any. These descriptions should include the types of traffic subject to the practices; the purposes served by the practices; the practices' effects on end users' experience; criteria used in practices, such as indicators of congestion that trigger a practice, including any usage limits triggering the practice, and the typical frequency of congestion; usage limits and the consequences of exceeding them; and references to engineering standards, where appropriate.[811]
- *Application-Specific Behavior.* Whether and why the ISP blocks or rate-controls specific protocols or protocol ports, modifies protocol fields in ways not prescribed by the protocol standard, or otherwise inhibits or favors certain applications or classes of applications.[812]

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[807] *Id.*

[808] *See, e.g.*, CTIA Comments at 19.

[809] *See, e.g.*, ADTRAN Comments at 26-27; American Association of Community Colleges Comments at 18-19; Atty's General Comments at 21-22; AT&T Comments at 11, n.7; Comcast Comments at 58-59; Cox Comments at 26; CTIA Comments at 18, 21; ESA Comments at 12; Software and Information Industry Alliance Comments at 8-9; Verizon Comments at 19; WISPA Comments at 43; WTA Comments at 11.

[810] *See, e.g.*, ESA Comments at 12-13 ("To the extent the Commission modifies its rules to permit paid prioritization, any such arrangements or other permitted discriminatory traffic practices must be disclosed along with the broadband provider's network management practices."); McDowell Testimony at 10-11.

[811] *Open Internet Order*, 25 FCC Rcd at 17938, para. 56; *see also, e.g.*, ESA Comments at 13 ("Broadband providers should also make clear the congestion levels that trigger their traffic management techniques and make available their traffic shaping policies, including what type of traffic is subjected to traffic shaping techniques.").

[812] *Open Internet Order*, 25 FCC Rcd at 17938, para. 56.

- *Device Attachment Rules.* Any restrictions on the types of devices and any approval procedures for devices to connect to the network.[813]
- *Security.* Any practices used to ensure end-user security or security of the network, including types of triggering conditions that cause a mechanism to be invoked (but excluding information that could reasonably be used to circumvent network security).[814]

We do not mandate disclosure of any other network management practices. Notably, we define "reasonable network management" to mean a practice "appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service."[815] The record reflects an overwhelming preference for this approach from the *Open Internet Order*, which provides ISPs greater flexibility and certainty.[816]

221. *Performance Characteristics.* In the *Open Internet Order*, the Commission required ISPs to disclose a service description as well as the impact of specialized services (non-broadband Internet access service data services) on performance. We find that the *Open Internet Order*'s performance metric disclosures benefit consumers without placing an undue burden on ISPs.[817]

222. We specifically require all ISPs to disclose:

- *Service Description.* A general description of the service, including the service technology, expected and actual access speed and latency, and the suitability of the service for real-time applications.[818]

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[813] *Id.* at 17938-39, para. 56.

[814] *Id.* at 17939, para. 56. We expect ISPs to exercise their judgment in deciding whether it is necessary and appropriate to disclose particular security measures. The Commission's primary concern is those security measures likely to affect a consumer's ability to access the content, applications, services, and devices of his or her choice. As a result, we do not expect ISPs to disclose internal network security measures that do not directly bear on a consumer's choices. *2011 Advisory Guidance*, 26 FCC Rcd at 9417-18.

[815] *Open Internet Order*, 25 FCC Rcd at 17952, para. 82 (acknowledging that legitimate network management includes ensuring network security and integrity, addressing traffic that is unwanted by end users (including by premise operators), and reducing or mitigating the effects of congestion on the network, and that "particular network architecture and technology" refers to the differences across access platforms such as cable, DSL, satellite, and fixed wireless).

[816] *See, e.g.*, ADTRAN Comments at 26 ("The problem with [the *Title II Order*] definition is that a 'technical management justification' is also a 'business practice,' because maintaining an efficiently operating network is a business practice. Thus, the rule seems to say that all network management decisions could be excluded from the definition of 'reasonable' network management decisions."); CenturyLink Comments at 35; Nominum Comments at 7-8; Nokia Comments at 17-18; Immarsat Comments at 15 ("The diversity of services that exist today and that are on the horizon, along with the multitudes of communications technologies capable of providing broadband Internet access service, warrant a flexible standard for determining what constitutes 'reasonable network management' under any net neutrality rules."); Gogo Comments at 6; Sprint Comments at 9.

[817] *See, e.g.*, ADTRAN Comments at 26-27; Comcast Comments at 58-59; Cox Comments at 26; CTIA Comments at 18, 21; WISPA Comments at 43; CTIA Reply at 43.

[818] *Open Internet Order*, 25 FCC Rcd at 17939, para. 56. For purposes of satisfying this requirement, fixed ISPs that choose to participate in the Measuring Broadband America (MBA) program may disclose their results as a sufficient representation of the actual performance their customers can expect to experience. Fixed ISPs that do not participate may use the methodology from the MBA program to measure actual performance, or may disclose actual performance based on internal testing, consumer speed test data, or other data regarding network performance, including reliable, relevant data from third-party sources. *2011 Advisory Guidance*, 26 FCC Rcd at 9414-15. Mobile ISPs that have access to reliable information on network performance may disclose the results of their own or third-party testing. Those mobile ISPs that do not have reasonable access to such network performance data may

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- *Impact of Non-Broadband Internet Access Service Data Services.* If applicable, what non-broadband Internet access service data services, if any, are offered to end users, and whether and how any non-broadband Internet access service data services may affect the last-mile capacity available for, and the performance of, broadband Internet access service.[819]

223. *Commercial Terms.* In the *Open Internet Order*, the Commission required ISPs to disclose commercial terms of service, including price, privacy policies, and redress options.[820] The record in this proceeding supports retaining these disclosures.[821] These disclosures inform the Commission, consumers, entrepreneurs, and other small businesses about the parameters of the service, without imposing costly burdens on ISPs. We therefore require ISPs to make the following disclosures:

- *Price.* For example, monthly prices, usage-based fees, and fees for early termination or additional network services.[822]
- *Privacy Policies.* A complete and accurate disclosure about the ISP's privacy practices, if any. For example, whether any network management practices entail inspection of network traffic, and whether traffic is stored, provided to third parties, or used by the ISP for non-network management purposes.[823]
- *Redress Options.* Practices for resolving complaints and questions from consumers, entrepreneurs, and other small businesses.[824]

224. *Eliminating the Title II Order's Additional Reporting Obligations.* Today, we return to a more balanced approach—one that provides sufficient information for the Commission to meet its statutory requirements, enables consumers to make informed choices about the purchase and use of broadband Internet access service, and ensures entrepreneurs and other small businesses can develop, market, and maintain Internet offerings, while minimizing costly and unnecessary burdens on ISPs.

225. We eliminate the additional reporting obligations adopted in the *Title II Order* and the related guidance in the *2016 Advisory Guidance* and return to the requirements established in the *Open Internet Order*. We find that these additional reporting obligations unduly burden ISPs without providing a comparable benefit to consumers.[825] That is especially true for the performance metric, which mandated

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disclose a Typical Speed Range (TSR) representing the range of speeds and latency that can be expected by most of their customers, for each technology/service tier offered, along with a statement that such information is the best approximation available to the broadband provider of the actual speeds and latency experienced by its subscribers. *2011 Advisory Guidance*, 26 FCC Rcd at 9415-16.

[819] *Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[820] *Id*.

[821] *See, e.g.*, American Association of Law Libraries et al. Comments at 17; Comcast Comments at 53-54; CWA/NAACP Comments at 3-4, 17-18; Free Press Comments at 70-71; WTA Comments at 11; Nominum Reply at 6. *But see* CenturyLink Comments at 34 (raising concerns regarding the additional commercial terms disclosure requirements established in the *Title II Order* in context of concerns regarding all the additional disclosure obligations).

[822] *Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[823] *Id.* at 17939, para. 56; *see also* Att'ys General Comments at 21-22 ("[T]ransparency rules ensure that consumers—and regulators—can monitor the data collection and privacy practices of ISPs. Without these protections and without strong disclosure requirements, it would be difficult, if not impossible, for consumers to determine whether their service includes network management policies or other conditions that may interfere with their online use and whether one ISP's policies differ from another ISP.").

[824] *Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[825] *See, e.g.*, AT&T Comments at 11, n.7; CenturyLink Comments at 34; CTIA Comments at 18; T-Mobile Comments at 21; WTA Comments at 11. As such, we reject commenters' assertions to the contrary. *See, e.g.*,

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disclosure of packet loss, geographically-specific disclosures, and disclosure of performance at peak usage times among other things.[826]

226. The record supports the elimination of these additional reporting obligations and our return to the requirements under the *Open Internet Order*.[827] The record indicates that the additional performance disclosures are among the most burdensome.[828] CenturyLink estimated that during the two-year period from February 2015 through February 2017, 1,650 hours of employee time were required to comply with the additional reporting obligations, compared to 860 additional hours spent complying with the other new requirements of the *Title II Order*.[829] Disclosure of packet loss, for example, requires providers to conduct additional engineering analysis.[830] Notably, the Office of Management and Budget (OMB) in the prior Administration declined to approve packet loss when reviewing these additional reporting obligations for mobile ISPs,[831] suggesting concern that the additional reporting obligations provided little consumer benefit relative to their cost.[832] After all, consumers have little understanding of what packet loss means; what they *do* want to know is whether their Internet access service will support real-time applications, which is the consumer-facing impact of these performance metrics. Although some commenters argue that additional reporting of these esoteric metrics are valuable to some consumers and entrepreneurs, they provide inadequate support for these benefits.[833] In addition, providing such information imposes significant costs on providers.[834] Weighing the additional costs to ISPs against

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American Association of Community Colleges Comments at 18-19; Cogent Comments at 25-26; CWA/NAACP Comments at 3-4, 17-18; ITIC Comments at 5; TDI et al. Comments at 7-8.

[826] *See Title II Order*, 30 FCC Rcd at 5673-74, para. 166.

[827] *See, e.g.*, AT&T Comments at 11, n.7; CenturyLink Comments at 34-35 (highlighting particular concerns with the disclosure of performance characteristics in the *Title II Order*); Cox Comments at 26; CTIA Comments at 18, 21; CTIA Reply at 2, 43; Frontier Comments at 12; Sprint Comments at 13, 16; T-Mobile Comments at 18; WISPA Comments at 18; WTA Comments at 11.

[828] *See, e.g.*, AT&T Comments at 11, n.7; CenturyLink Comments at 34; CTIA Comments at 18; T-Mobile Comments at 21; WTA Comments at 11.

[829] CenturyLink Comments, Appx. 3, Decl. of Jeff Glover at 2 (CenturyLink Declaration of Jeff Glover).

[830] *See, e.g.*, AT&T Comments at 11, n.7; T-Mobile Comments at 21; WTA Comments at 11.

[831] *See* Notice of Office of Management and Budget Action, OMB Control No. 3060-1220 (approved Dec. 15, 2016), *available at* https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201612-3060-012 (stating that "with regard to packet loss: i. the practical utility of packet loss as it relates to mobile performance disclosure; ii. "accurate" methods of calculating mobile packet loss (i.e., drive testing, voluntary app, etc.) iii. whether using voluntary consensus standards would be a viable alternative"); *see also* Notice of Office of Management and Budget Action, OMB Control No. 3060-1158 (approved Dec. 15, 2016), *available at* https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201608-3060-005; Notice of Office of Management and Budget Action, OMB Control No. 3060-1220 (approved Dec. 15, 2016).

[832] *See, e.g.*, AT&T Comments at 11, n.7; CTIA Comments at 18; Sprint Comments at 16.

[833] *See e.g.*, Cogent Comments at 25-26 ("This means preserving the requirement that BIAS providers produce performance data on packet loss in addition to speed and latency, and that such data be measured in terms of average performance during peak hours."); CWA/NAACP Comments at 17-18 (noting that the Commission should maintain the transparency requirements adopted in the *Title II Order*, including the requirement to disclose packet loss); ITIC Comments at 5 ("ITI agrees with the 2010 and 2015 order findings that detailed disclosure of service performance in particular, 'promotes innovation, investment, end-user choice, and broadband adoption.'"); TDI et al. Comments at 8 (stating that "consumers with disabilities cannot fairly assess whether particular the service will meet their unique needs without detailed information about the performance, limitations, and cost of a particular wired or wireless internet service").

[834] *See, e.g.*, ADTRAN Comments at 26-27; AT&T Comments at 11 n.7; CenturyLink Comments at 35; Comcast Comments at 58-59; Cox Comments at 26; Frontier Comments at 12; Sprint Comments at 13; WISPA Comments at 43; WTA Comments at 11; Alamo Broadband Reply at 2; CTIA Reply at 43; *see also Small Business Exemption*

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the limited incremental benefits to consumers, entrepreneurs, and small businesses, we conclude that the net benefits of these additional reporting obligations are likely negative. The approach we take today achieves the benefits of transparency at much lower cost than the *Title II Order*.[835]

227. *Small Providers.* Small providers have asked us to maintain the exemption found in the *Small Provider Order* to the extent that any of additional reporting obligations still apply.[836] Because the requirements we adopt today eliminate all of these additional obligations and do not impose disparately high burdens on small providers, we find an exemption for small providers unnecessary. Further, the requirements are critical to ensuring that consumers have sufficient information to make informed choices in their selection of ISPs and to deter ISPs from secretly erecting barriers to market entry by entrepreneurs and other small businesses. As a result, we decline to provide an exemption for smaller providers at this time.

b. Means and Format of Disclosure

228. *Means of Disclosure.* The Commission relies on ISP disclosures to identify market-entry barriers for entrepreneurs and small businesses and ensure consumers have the information they need in selecting an ISP. And given the sheer number of ISPs offering service throughout the country—4,559 at last count—we believe the most effective way to monitor for any such barriers is to require the public disclosure of an ISP's practices so that Commission staff can review them while letting consumers, entrepreneurs, and other small businesses report to the Commission any market-barriers they discover. Accordingly, ISPs must publicly disclose the information required by our transparency rule.

229. We give ISPs two options for disclosure. First, they may include the disclosures on a publicly available, easily accessible website. Consistent with Commission precedent, we expect that ISPs will make disclosures in a manner accessible by people with disabilities.[837] ISPs doing so need not distribute hard copy versions of the required disclosures and need not file them with the Commission, which can review the disclosures as needed on the ISPs' websites. For ISPs electing this option, we reaffirm the means of disclosure requirement from the *Open Internet Order* and the clarification found in the *2011 Advisory Guidance*.[838] Alternatively, ISPs may transmit their disclosures to the Commission, and we will make them available on a publicly available, easily accessible website.[839] By offering these two options, we allow ISPs (and especially smaller ISPs) the ability to choose the least burdensome method of disclosure that will nonetheless ensure that Commission staff, consumers, entrepreneurs, and

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from Open Internet Enhanced Transparency Requirements Order, 32 FCC Rcd 1772, 1774, para. 6 (2017) ("[T]here is substantial evidence that smaller providers—which can serve as vital sources of broadband throughout the country—would face real disincentives to deploying, maintaining, or upgrading that broadband infrastructure in light of the initial costs associated with the enhanced requirements.").

[835] *See infra* paras. 313-315.

[836] *See* ACA Comments at 76; WISPA Comments at 42-43.

[837] *See Open Internet Order*, 25 FCC Rcd at 17940, n.186.

[838] *See id.* at 17939-40, paras. 57-58 (requiring that ISPs, at a minimum, "prominently display or provide links to disclosures on a publicly available, easily accessible website that is available to current and prospective end users and edge providers as well as to the Commission, and must disclose relevant information at the point of sale" and noting that providers "may be able to satisfy the transparency rule through a single disclosure"); *2011 Advisory Guidance*, 26 FCC Rcd at 9413-14 (clarifying that the *Open Internet Order* did not require providers to distribute hard copy materials or to provide extensive training to sales employees in delivering these disclosures).

[839] We direct the Consumer and Governmental Affairs Bureau, in coordination with the Wireline Competition Bureau, to issue a Public Notice explaining how ISPs can exercise this option. We also note that ISPs that do not transmit their disclosures to the FCC will be deemed as having elected the first option (and may later elect that option despite prior transmittal by informing the Commission in a manner specified in the aforementioned Public Notice).

other small businesses have access to the information they need in carrying out our obligation to identify market-entry barriers.

230. We also eliminate the direct notification requirement adopted in the *Title II Order*.[840] We find the direct notification requirement unduly burdensome to ISPs and unnecessary in light of the other forms of public disclosure required. In contrast, we find that the disclosures adopted in the *Open Internet Order* and *2011 Advisory Guidance* appropriately balance making information easy to reach and the costs of disclosure for ISPs.

231. *Format of Disclosure.* We eliminate the consumer broadband label safe harbor for form and format of disclosures adopted in the *Title II Order*.[841] Adopting the label could require some ISPs to expend substantial resources to tailor their disclosures to fit the format.[842] And limited adoption, caused by the potentially high burdens associated with adapting disclosures to a particular format, significantly reduces the value of the uniform format. Moreover, mandating such a format would increase the burden for those ISPs required to revise their existing disclosure to conform to the mandated format. We find that requiring all ISPs to disclose the same information, regardless of format, will allow for comparability between offerings, and enable the Commission to meet its statutory reporting requirements.

3. Authority for the Transparency Rule

232. Just as the Commission did in the *Open Internet Order*,[843] we rely on section 257 of the Communications Act as authority for the transparency requirements we retain. Section 257(a) directs the Commission to "identify[] and eliminat[e] . . . market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services."[844] Section 257(a) set a deadline of 15 months from the enactment of the 1996 Act for the Commission's initial effort in that regard, and section 257(c) directs the Commission, triennially

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[840] *See Title II Order*, 30 FCC Rcd at 5677, para. 171 (adding a requirement to directly notify end users "if their individual use of a network will trigger a network practice, based on their demand prior to a period of congestion, that is likely to have a significant impact on the end user's use of the service").

[841] *See id*. at 5680-81, paras. 179-81.

[842] *See, e.g.*, Frontier Comments at 12.

[843] *See Open Internet Order*, 25 FCC Rcd at 17980-81, para. 136 n.444. We reject alleged shortcomings in the notice for our transparency rule, including our reliance on section 257. *See, e.g.*, Letter from Matthew Wood, Policy Director, and Gaurav Laroia Policy Counsel, Free Press, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 2-3 (filed Dec. 7, 2017) (Free Press Dec. 7, 2017 *Ex Parte* Letter). The *Internet Freedom NPRM* explicitly solicited comment on "any other sources of independent legal authority we might use to support such rules," including "the Communications Act authority cited by the Commission in its Open Internet Order." *Internet Freedom NPRM*, 32 FCC Rcd at 4467 para. 103. Reliance on section 257 as authority for the transparency rule was raised in the *Open Internet Order* and *Verizon* case that form part of the backdrop here. *See, e.g.*, *Open Internet Order*, 25 FCC Rcd at 17980-81, para. 136 n.444; *Verizon*, 740 F.3d at 668, n.9 (Silberman, S.J., dissenting). Although the request for comment on legal authority in the Notice did not cite the specific *Open Internet Order* paragraph purporting to rely on section 4(k) of the Act, which has been eliminated, *see* Pub. L. No. 104-66, Title III, § 3003, 109 Stat. 707, 734 (Dec. 21, 1995)—in which section 257 is discussed in a footnote—commenters reasonably understood that the full range of authorities cited by the Commission in the past, along with others they could identify, were within the scope of the request for comment. *See, e.g.*, NCTA Comments at 57 ("The Commission also could consider other statutory bases for authority for enforcement in this area. Notably, the 2010 Open Internet Order cited various provisions in Titles I, II, III, and VI as possible additional grants of authority on top of its Section 706 authority."); Akamai Comments at 14 (similar); Entertainment Software Association Comments at 16-17 (similar); *see also, e.g.*, CenturyLink Comments at 54 (arguing that the prerequisites for authority ancillary to section 257 likely are satisfied for a transparency rule); AT&T Comments at 109-10 (similar); TechFreedom Reply at 72, 84 (similar).

[844] 47 U.S.C. § 257(a).

thereafter, to report to Congress on such marketplace barriers and how they have been addressed by regulation or could be addressed by recommended statutory changes.[845] Consistent with the Commission's longstanding view, section 257(c) is properly understood as imposing a continuing obligation on the agency to identify barriers described in section 257(a) that may emerge in the future, rather than limited to those identified in the original section 257(a) proceeding.[846] Because sections 257(a) and (c) clearly anticipate that the Commission and Congress would take steps to help eliminate previously-identified marketplace barriers, limiting the triennial reports only to those barriers identified in the original section 257(a) proceeding could make such reports of little to no ongoing value over time. We thus find it far more reasonable to interpret section 257(c) as contemplating that the Commission will perform an ongoing market review to identify any new barriers to entry, and that the statutory duty to "identify and eliminate" implicitly empowers the Commission to require disclosures from those third parties who possess the information necessary for the Commission and Congress to find and remedy market entry barriers.[847]

233. Our disclosure requirements will help us both identify and address potential market entry barriers in the provision and ownership of information services and the provision of parts and services to information service providers. In particular, some Internet applications and services previously have been found to be information services,[848] and, more generally, entrepreneurs and small businesses participating in the Internet marketplace could be seeking to act as either providers of information services or providers of parts and services to information services (or both). The language of section 257(a) appears reasonably read to encompass those entrepreneurs' and small businesses' services under one or more of the covered

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[845] 47 U.S.C. § 257(c).

[846] This is consistent with the Commission's historical understanding of this provision. *See, e.g.*, *Technology Transitions et al.*, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433, 1460, para. 77 & n.30 (2014) (describing section 257 as "mandating ongoing review to identify and eliminate 'market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services'"); *Preserving the Open Internet; Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064, 13084-85, para. 51 & n.114 (2009) (same); *Comcast-BitTorrent Order*, 23 FCC Rcd at 13040, para. 20 (similar).

[847] *See* 47 U.S.C. § 257. Although section 257 does not specify precisely how the Commission should obtain and analyze information for purposes of its reports to Congress, we construe the statutory mandate to "identify" the presence of market barriers as including within it direct authority to collect evidence to prove that such barriers exist. *See, e.g.*, Black's Law Dictionary (10th ed. 2014) (defining "identify" as "[t]o prove the identity of (a person or thing)"). While this direct authority suffices to support the Commission's adoption of the transparency rule, sections 4, 201(b), and 303(r) of the Act also give us rulemaking authority to implement the Act, including the provisions we rely on as authority for our transparency requirements. 47 U.S.C. §§ 154, 201(b), 303(r). In his partial concurrence and partial dissent in *Verizon*, Judge Silberman stated with respect to the transparency rule that "[t]he Commission is required to make triennial reports to Congress on 'market entry barriers' in information service, 47 U.S.C. § 257, and requiring disclosure of network management practices appears to be reasonably ancillary to that duty." *Verizon*, 740 F.3d at 668 n.9 (Silberman, S.J., dissenting); *see also Comcast*, 600 F.3d at 659 ("We readily accept that certain assertions of Commission authority could be 'reasonably ancillary' to the Commission's statutory responsibility to issue a report to Congress. For example, the Commission might impose disclosure requirements on regulated entities in order to gather data needed for such a report."); CenturyLink Comments at 54 (arguing that the prerequisites for authority ancillary to section 257 likely are satisfied for a transparency rule).

[848] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5740-41, para. 323 (describing applications "that enable access to email and the ability to establish home pages" as information services); *id*. at 5757-58, para. 356 (describing email and online storage as information services); *id*. at 5773, paras. 376-77 (describing email, cloud-based storage, and spam protection as information services).

categories, and there is no dispute in the record in that regard.[849] In addition, the manner in which an ISP provides broadband Internet access service, including but not limited to its network management practices, can affect how well particular Internet applications or services of entrepreneurs and small businesses perform when used by that ISP's subscribers.[850] Aspects of the performance of broadband Internet access services, particularly if undisclosed, thus could constitute barriers within the scope of section 257(a) in the future,[851] depending on how the marketplace evolves, regardless of whether or not particular practices do so today. For example, if ISPs do not disclose key details of how they provide broadband Internet access service, that could leave entrepreneurs and small businesses participating in the Internet marketplace unable to determine how well particular existing or contemplated offerings are likely to perform for users, and thus unable to determine if their service will be usable to a sufficient number of potential customers to make the offering viable. Such undisclosed practices also can leave consumers unable to judge which broadband Internet access service offerings will best meet their needs given the applications and service they wish to use. As a result, even if a sufficient number of consumers theoretically are accessible by a broadband Internet access service offering with sufficient technical characteristics to make a given Internet application or service viable, an entrepreneur's or small business's entry into the market for that service could be undermined if consumers are unable to identify which of the various broadband Internet access services offerings has the required technical characteristics. By contrast, the record reveals that the disclosure of practices and service characteristics we require today helps entrepreneurs and small businesses understand how well particular Internet application or service offerings are likely to work with particular ISPs' broadband Internet access services and helps consumers make the most educated choice among ISPs and particular broadband Internet access service offerings, especially if they have particular interests in using Internet applications or services that are highly dependent on broadband Internet access service performance.[852] The disclosures themselves thus are likely to reduce any potential risk of particular practices being such a barrier—had they not been publicly disclosed—and also enable us to recommend to Congress any legislative changes that we might find warranted based on our analysis of these practices.[853] Thus, we continue to believe that section 257

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[849] Because we find that Internet entrepreneurs and small businesses that depend on their customers using broadband Internet access service are covered by section 257(a) in any case, we need not and do not address with greater specificity the specific category or categories into which particular edge services fall.

[850] *See, e.g.*, *Business Data Services In An Internet Protocol Environment et al.*, Report and Order, 32 FCC Rcd 3459, 3470, para. 23 (2017) (*BDS Order*) ("The routing and reassembling of data packets . . . can lead to packet loss, jitter, and latency, affecting the quality of service needed to support certain applications desired by users, e.g., real-time and mission critical applications."); AT&T Comments at 5, 36, 38 (discussing "latency-sensitive applications" such as "autonomous cars, remote surgery," "high-definition videoconferencing or massively multiplayer online gaming," and "VoIP or video"); Comcast Comments at 56; Cisco Reply at 7-8.

[851] *Cf., e.g.*, Nominum Reply at 6 ("[E]ffective disclosure of ISP' network management practices, performance, and commercial terms of service promotes competition, innovation, investment, end-user choice and broadband adoption."); Apple Reply at 3 ("[O]nline providers need clear information about the management and performance of residential broadband services to understand that their services will be delivered to their customers as intended.").

[852] *See, e.g.*, Comcast Comments at 53-54; Software and Information Industry Association Reply at 7; Atty's General Comments at 21-22; Internet Ass'n Comments at 30-31.

[853] 47 U.S.C. § 257(c) (specifying that the reports to Congress under section 257(c) should identify any statutory changes needed to eliminate barriers). While we observe that the transparency rule will help eliminate potential barriers, our reliance on section 257 as authority for the transparency rule centers on the need for that rule to identify barriers and report to Congress in that regard. Contrary to some arguments, we thus do not interpret section 257 as an over-arching grant of authority to eliminate any and all barriers we might identify. *See* Free Press Dec. 7, 2017 *Ex Parte* Letter at 2. We also are not persuaded by summary claims that section 257 does not grant us authority here insofar as those claims lack meaningful analysis of the text of that provision. *See, e.g.*, Letter from Russell D. Lukas and David A. LaFuria, counsel for Union Telephone et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O'Rielly, Commissioner, Federal Communications

(continued….)

provides us authority for the rule we adopt.

234. We believe that eliminating market entry barriers in the provision and ownership of information services and the provision of parts and services to information service providers will help bring the benefits of new inventions and developments to the public. In addition, we conclude that the oversight over ISPs' practices that the Commission, FTC, and other antitrust and consumer protection authorities can exercise as a result of the transparency rule likewise will promote innovation and competition, spreading the benefits of technological development to the American people broadly.

235. *The Transparency Requirements Are Consistent With the First Amendment*. We conclude that the transparency requirements represent permissible regulation of commercial speech.[854] The ultimate effect of the required disclosures is to ensure that key details regarding service characteristics, rates, and terms of broadband Internet access service offerings are available to potential customers before they make their purchasing decisions. As stated above, ISPs have two options for complying with the transparency requirements. One is to make the disclosures on a publicly available, easily accessible website. Alternatively, ISPs can elect to simply provide that information to the Commission, which will then itself make the information publicly available. The *Title II Order* evaluated the transparency rule at issue there under *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*,[855] and there is some record support for applying that framework.[856] We recognize that there remains some debate regarding the application of *Zauderer*, as opposed to the *Central Hudson* framework that generally governs First Amendment review of commercial speech regulation.[857] We need not resolve that here, because we find that our rule would withstand scrutiny even under *Central Hudson*. In particular, our transparency rule directly advances substantial government interests and is no more extensive than necessary.[858]

236. The transparency requirements we retain directly advance substantial government interests in encouraging competition and innovation. The Act itself reveals the significance of these

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Commission, WC Docket No. 17-108, at 2, 7 (filed Dec. 7, 2017) (Union Telephone et al. Dec. 7, 2017 *Ex Parte* Letter).

[854] The Commission previously has analyzed the transparency requirements as regulation of commercial speech, *see, e.g.*, *Title II Order*, 30 FCC Rcd at 5873-75, paras. 559-63, and there are no arguments in the record here contending that it is noncommercial speech. In addition, even in cases where courts have found somewhat less than "a clear fit between the commercial speech doctrine and the" regulated speech, they have recognized that within an agency's regulated "field of economic activity, communication of the regulated parties often bears directly on the particular economic objectives sought by the government" and courts have applied "limited First Amendment scrutiny." *SEC v. Wall Street Pub. Institute, Inc.*, 851 F.2d 365, 372, 373 (D.C. Cir. 1988); *see also, e.g.*, *Pharm. Care Mgmt. Ass'n v. Rowe*, 429 F.3d 294, 316 (1st Cir. 2005) ("What is at stake here . . . is simply routine disclosure of economically significant information designed to forward ordinary regulatory purposes-in this case, protecting covered entities from questionable PBM business practices. There are literally thousands of similar regulations on the books-such as product labeling laws, environmental spill reporting, accident reports by common carriers, SEC reporting as to corporate losses and (most obviously) the requirement to file tax returns to government units who use the information to the obvious disadvantage of the taxpayer. The idea that these thousands of routine regulations require an extensive First Amendment analysis is mistaken.").

[855] *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626 (1985) (*Zauderer*).

[856] *Title II Order*, 30 FCC Rcd at 5873-75, paras. 559-63; Geoffrey A. Manne et al., *A Conflict of Visions: How the "21st Century First Amendment" Violates the Constitution's First Amendment*, 13 FIRST AMEND. L. REV. 319, 335 (2015), *cited in* R Street Comments at 19 n.68.

[857] *See, e.g.*, *Nat'l Ass'n of Mfrs. v. SEC*, 800 F.3d 518 (D.C. Cir. 2015).

[858] *Central Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n,* 447 U.S. 557, 563-64 (1980) (*Central Hudson*).

interests.[859] In section 257 of the Act, Congress specifically directed the Commission to identify market entry barriers in the provision of information services and their inputs, eliminating them where possible, and reporting to Congress on the need for any statutory changes required to address such barriers.[860] In carrying out our responsibilities under section 257, Congress directed us to advance, among other things, "vigorous economic competition" and "technological advancement."[861]

237. The disclosure of information regarding broadband Internet access service characteristics, rates, and terms directly advance those statutory directives.[862] Broadband Internet access service subscribers will be able to use the disclosed information to evaluate broadband Internet access service offerings and determine which offering will best enable the use of the applications and service they desire. This helps guard against the potential barrier to entry and deterrent to technological advancement that otherwise could be faced by entrepreneurs' and small business' innovative Internet applications and service offerings, which may be dependent on the technical characteristics of broadband Internet access service. The information disclosed by ISPs also is relevant to Internet application and service providers' purchase of services from those ISPs. The record reveals evidence that a number of the Internet applications and services that might be particularly sensitive to the manner in which an ISP provides broadband Internet access service potentially could benefit from the freedom this order provides for providers of such services and ISPs to enter prioritization arrangements to better ensure the performance of those Internet applications and services.[863] Thus, the disclosures enable entrepreneurs, small businesses, and other participants in the Internet marketplace to evaluate how well their offerings will perform by default relative to the prioritization services that ISPs offer them. Enabling Internet application and service providers to evaluate their options in this way helps reduce barriers to entry that otherwise could exist and encourages entrepreneurs' and small businesses' ability to compete and develop and advance innovating offerings in furtherance of our statutory objectives. In addition to those considerations, as the Commission has recognized, disclosures help ensure accountability by ISPs and the potential for quick remedies if problematic practices occur.[864] The disclosures also provide the

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[859] Such interests are similar to those recognized as substantial by courts, as well. *See, e.g.*, *Prometheus Radio Project v. FCC*, 652 F.3d 431, 465 (3d Cir. 2011) ("We agree with the FCC that the rules do not violate the First Amendment because they are rationally related to substantial government interests in promoting competition and protecting viewpoint diversity."); *DISH Network Corp. v. FCC*, 653 F.3d 771, 780 (9th Cir. 2011) ("The Supreme Court has recognized that '[T]he Government's interest in eliminating restraints on fair competition is always substantial, even when the individuals or entities subject to particular regulations are engaged in expressive activity protected by the First Amendment.'" (quoting *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 664 (1994) (*Turner I*))); *Satellite Broad. & Commc'ns Ass'n v. FCC*, 275 F.3d 337, 364 (4th Cir. 2001) ("This interest in preserving a level playing field in local broadcast advertising markets seems to us at least as significant as many interests which the Supreme Court has found to be important or substantial."); *U.S. West, Inc. v. FCC*, 182 F.3d 1224, 1234, 1236 (10th Cir. 1999) ("[P]romoting competition . . . may constitute [a] legitimate and substantial interest[]," although there the court was "not satisfied that the interest in promoting competition was a significant consideration in the enactment of § 222," which the Commission was implementing.).

[860] 47 U.S.C. § 257(a), (c).

[861] 47 U.S.C. § 257(b).

[862] We thus disagree with arguments that there is insufficient justification for our transparency requirements to withstand First Amendment scrutiny. *See, e.g.*, CenturyLink Comments at 44-46 ("Mandated information-disclosure requirements are, therefore, unconstitutional in the absence a documented governmental justification."). Moreover, commenters do not cite precedent demonstrating that only "systematic or enduring problem[s]" can provide the basis for requirements that withstand First Amendment scrutiny. *See id*. at 45.

[863] *See, e.g.*, AT&T Comments at 5, 36, 38; Comcast Comments at 56 (discussing applications sensitive to performance such as "telepresence service tailored for the hearing impaired" and "telemedicine"); Cisco Reply at 7-8.

[864] *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53.

Commission the information it needs for the evaluation required by section 257 of the Act, enabling us to spur regulatory action or seek legislative changes as needed. The transparency rule we retain thus directly advances the substantial government interests identified in section 257 of the Act.

238. The transparency requirements also are no more extensive than necessary. The disclosures covered by our transparency rule are tied to our duties under section 257 of the Communications Act. We also observe in this regard that the most significant concerns were raised with respect to the additional reporting obligations adopted in the *Title II Order* and here we eliminate those requirements in favor of a rule consistent in scope with the 2010 transparency rule.[865] In addition, an ISP's direct public disclosure of the information encompassed by the transparency rule is just one option; it may instead submit the information to the Commission, which would then make public.[866] We thus conclude that the transparency requirements are appropriately tailored to the Congressionally-recognized goals that we seek to advance.

B. Bright-Line and General Conduct Rules

239. We eliminate the conduct rules adopted in the *Title II Order*—including the general conduct rule and the prohibitions on paid prioritization, blocking, and throttling. We do so for three reasons. First, the transparency rule we adopt, in combination with the state of broadband Internet access service competition and the antitrust and consumer protection laws, obviates the need for conduct rules by achieving comparable benefits at lower cost. Second, scrutinizing closely each prior conduct rule, we find that the costs of each rule outweigh its benefits. Third, the record does not identify any legal authority to adopt conduct rules for all ISPs, and we decline to distort the market with a patchwork of non-uniform, limited-purpose rules.

1. Transparency Leads to Openness

240. Transparency, competition, antitrust laws, and consumer protection laws achieve similar benefits as conduct rules at lower cost. The effect of the transparency rule we adopt is that ISP practices that involve blocking, throttling, and other behavior that may give rise to openness concerns will be disclosed to the Commission and the public.[867] As the Commission found in the *Open Internet Order*, "disclosure increases the likelihood that broadband providers will abide by open Internet principles, and that the Internet community will identify problematic conduct and suggest fixes . . . thereby increas[ing] the chances that harmful practices will not occur in the first place and that, if they do, they will be quickly remedied."[868] The transparency rule will also assist "third-party experts such as independent engineers and consumer watchdogs to monitor and evaluate network management practices."[869]

241. History demonstrates that public attention, not heavy-handed Commission regulation, has been most effective in deterring ISP threats to openness and bringing about resolution of the rare incidents that arise. The Commission has had transparency requirements in place since 2010, and there have been

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[865] *See, e.g.*, CenturyLink Comments at 44-45 (arguing that the additional reporting requirements would not survive First Amendment scrutiny while also stating that "even, potentially, some of the more onerous aspects of the disclosure requirements adopted in the *2010 Open Internet Order*" might not survive such scrutiny, though without specifying the particular elements of the 2010 rules that would be of concern, or why).

[866] *Cf. Riley v. National Fed'n of the Blind of N.C., Inc.*, 487 U.S. 781, 800 (1988) (in contrast to the state's requirement that professional fundraisers make certain disclosures in solicitations, as a "more benign and narrowly tailored option[] . . . the State may itself publish the detailed financial disclosure forms it requires professional fundraisers to file").

[867] *See supra* Part IV.A.

[868] *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53.

[869] *Id.* at 17941, para. 60.

very few incidents in the United States since then that plausibly raise openness concerns.[870] It is telling that the two most-discussed incidents that purportedly demonstrate the need for conduct rules, concerning Madison River and Comcast/BitTorrent, occurred before the Commission had in place an enforceable transparency rule. And it was the disclosure, through complaints to the Commission and media reports of the conduct at issue in those incidents, that led to action against the challenged conduct.

242. As public access to information on ISP practices has increased, there has been a shift toward ISPs resolving openness issues themselves with less and less need for Commission intervention. In 2005, the Enforcement Bureau entered into a consent decree to resolve the allegations against Madison River.[871] In 2008, Comcast reached a settlement with BitTorrent months before the Commission issued *Comcast-BitTorrent*.[872] By 2012, with a transparency rule in place, AT&T reversed its blocking of access to FaceTime over its cellular network on certain data plans of its own accord within approximately three months.[873] This trend toward swift ISP self-resolution comes, admittedly, from only a few data points because, with transparency in place, almost no incidents of harm to Internet openness have arisen,[874] suggesting that ISPs are "resolving" issues by not letting them occur in the first place.

243. We think the disinfectant of public scrutiny and market pressure, not the threat of heavy-handed Commission regulation, best explain the paucity of issues and their increasingly fast ISP-driven resolution.[875] Since the Commission adopted a transparency rule in the *Open Internet Order*, conduct requirements have varied substantially, from the rules adopted in the *Open Internet Order*, to no conduct rules after the *Verizon* court case, to the rules adopted in the *Title II Order*. Yet through all that time, the Commission released only one Notice of Apparent Liability, against AT&T for allegedly violating the transparency rule.[876] The dearth of actions enforcing conduct rules is striking. Further, the *Title II Order* and *Open Internet Order* do not, and could not, claim an epidemic or even uptick of blocking or degradation of traffic in the wake of the *Comcast* or *Verizon* court decisions vacating the Commission's prior attempts at openness regulation.[877] These time periods provide a natural experiment disproving the notion that conduct rules are necessary to promote openness.

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[870] *See supra* Part III.C.2.

[871] *Madison River Order*, 20 FCC Rcd at 4295.

[872] *See* David Kirkpatrick, Comcast-BitTorrent: The Net's Finally Growing Up (Mar. 28, 2008), http://archive.fortune.com/2008/03/27/technology/comcast.fortune/index.htm; *Comcast-BitTorrent Order*, 23 FCC Rcd at 13091 (Dissenting Statement of Comm'r McDowell) (stating that Comcast and BitTorrent "settled their differences 'out of court'").

[873] *See* Open Internet Advisory Committee Federal Communications Commission, AT&T/FaceTime Case Study at 2 (Aug, 20, 2013) (AT&T/FaceTime Case Study), https://transition.fcc.gov/cgb/oiac/Mobile-Broadband-FaceTime.pdf (providing timeline of events); Bob Quinn, AT&T Senior Executive Vice President of External & Legislative Affairs, Enabling FaceTime Over Our Mobile Broadband Network (Aug. 22, 2012), https://www.attpublicpolicy.com/fcc/enabling-facetime-over-our-mobile-broadband-network/ (AT&T Aug. 2012 Post) ("Our policies regarding FaceTime will be fully transparent to all consumers, and no one has argued to the contrary. There is no transparency issue here.").

[874] *See supra* Part III.C.2.

[875] We thus reject arguments to the contrary. *See, e.g.*, EFF Comments at 6 ("[T]he threat of regulation has kept service providers honest.").

[876] *See* AT&T Mobility, Notice of Apparent Liability for Forfeiture and Order, 30 FCC Rcd 6613 (2015). AT&T contends that it did not violate the Commission's rules. *See, e.g.*, Margaret Harding McGill, Law360, AT&T Calls FCC's Proposed $100M Fine Irresponsible, Unfair (July 27, 2015), https://www.law360.com/articles/684070/at-t-calls-fcc-s-proposed-100m-fine-irresponsible-unfair.

[877] *Cf. 2014 Notice*, 29 FCC Rcd at 5563, para. 3 ("Today, there are no legally enforceable rules by which the Commission can stop broadband providers from limiting Internet openness.").

244. Although we think transparency promotes openness and empowers consumers, we recognize that regulation has an important role to play as a backstop where genuine harm is possible. In particular, transparency amplifies the power of antitrust law and the FTC Act to deter and where needed remedy behavior that harms consumers. While some commenters assert that proof is difficult in antitrust proceedings,[878] our transparency rule requires ISPs to outline their business practices and service offerings forthrightly and honestly. This requirement both deters ISPs from engaging in anticompetitive, unfair, or deceptive conduct and gives consumers and regulators the tools they need to take action in the face of such behavior. Many ISPs have committed to abide by open Internet principles.[879] By restoring authority to the FTC to take action against deceptive ISP conduct, reclassification empowers the expert consumer protection agency to exercise the authority granted to them by Congress if ISPs fail to live up to their word and thereby harm consumers.[880]

245. Transparency thus leads to openness and achieves comparable benefits to conduct rules. Moreover, the costs of compliance with a transparency rule are much lower than the costs of compliance with conduct rules.[881] We therefore decline to impose this additional cost given our view that transparency drives a free and open Internet, and in light of the FTC's and DOJ's authority to address any potential harms. To the extent that conduct rules lead to any additional marginal deterrence, we deem the substantial costs—including costs to consumers in terms of lost innovation as well as monetary costs to ISPs[882]—not worth the possible benefits.

2. Costs of Conduct Rules Outweigh Benefits

a. General Conduct Rule

246. We find that the vague Internet Conduct Standard[883] is not in the public interest.[884] Following adoption of this Order, the FTC will be able to vigorously protect consumers and competition through its consumer protection and antitrust authorities. Given this, we see little incremental benefit and significant cost to retaining the Internet Conduct Standard. The rule has created uncertainty and likely

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[878] *See, e.g.*, Akamai Comments at 8-9 ("Broadband provider practices favoring affiliates are unlikely to manifest in the type of demonstrable price hikes or output effects that are most common predicates to successful antitrust challenges.").

[879] *See supra* Part III.C.2 (collecting examples).

[880] *See* Acting Chairman Ohlhausen Comments at 11; FTC Staff Comments at 22-23.

[881] *See* ACA Comments at v ("ACA agrees with the NPRM's observation that disclosure requirements can be among the least intrusive of regulatory measures at the Commission's disposal."); Comcast Comments at 53-54 (asserting that transparency requirements "are less intrusive than other forms of regulation"); *infra* Part IV.B.2.

[882] *See infra* Part IV.B.2.

[883] In the *Title II Order*, the Commission created a catch-all standard intended to prohibit "current or future practices that cause the type of harms [the Commission's] rules are intended to address." *Title II Order*, 30 FCC Rcd at 5659, para. 135. This standard allows the Commission to prohibit practices that it determines unreasonably interfere with or unreasonably disadvantage the ability of consumers to reach the Internet content, services, and applications of their choosing or of online content, applications, and service providers to access consumers. *Id*.

[884] As such, we find commenters urging the Commission to retain this standard, even with modifications, unpersuasive. *See, e.g.*, Consumers Union Comments at 2, 11; Harold Hallikainen Comments at 12; Home Telephone Company Comments at 20; ESA Comments at 9; EFF Comments at 28-29; Free Press Comments at 65-66; Greenling Institute Comments at 13; INCOMPAS Comments at 72; Independent Film & TV Alliance Comments at 5; Microsoft Comments at 16; National Association of Realtors Comments at 1; Thomas Preston Comments at 2; Vimeo Comments at 2, 17; AARP Reply at 9; City and County of San Francisco Reply at 4; ESA Reply at 5; Internet Association Reply at 22-24; United Nations Special Rapporteur Reply at 7 ("While it is arguable that the Internet Conduct Standard should be tightened or clarified, we are concerned that its wholesale repeal will remove a critical safeguard of net neutrality and, by extension, the freedom of expression of end users.").

denied or delayed consumer access to innovative new services, and we believe the net benefit of the Internet Conduct Standard is negative.[885]

247. Based on our experience with the rule and the extensive record, we are persuaded that the Internet Conduct Standard is vague and has created regulatory uncertainty in the marketplace hindering investment and innovation. Because the Internet Conduct Standard is vague, the standard and its implementing factors do not provide carriers with adequate notice of what they are and are not permitted to do, i.e., the standard does not afford parties a "good process for determining what conduct has actually been forbidden."[886] The rule simply warns carriers to behave in accordance with what the Commission *might* require, without articulating any actual standard.[887] Even ISP practices based on consumer choice are not presumptively permitted; they are merely "less likely" to violate the rule.[888] Moreover, the uncertainty caused by the Internet Conduct Standard goes far beyond what supporters characterize as the flexibility that is necessary in a regulatory structure to address future harmful behavior.[889] We thus find that the vague Internet Conduct Standard subjects providers to substantial regulatory uncertainty[890] and that the record before us demonstrates that the Commission's predictive judgment in 2015 that this uncertainty was "likely to be short term and will dissipate over time as the marketplace internalizes [the] Title II approach"[891] has not been borne out.

248. Increasing our concerns about the Internet Conduct Standard, other agencies already have significant experience protecting against the harms to competition and to consumers that the Internet Conduct Standard purports to reach. The FTC, for example, has authority over unfair and deceptive practices, both with respect to competition and consumer protection. We find that the FTC's authority over unfair and deceptive practices and antitrust laws, with guidance from its ample body of precedent,[892] already provides the appropriate flexibility and predictability to protect consumers and competition and

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[885] *Infra* paras. 316-318.

[886] ADTRAN Comments at 23-24; *see also, e.g.*, ACA Comments at 59-60, 62; AT&T Comments at 50-51; CAGW Comments at 8 (July 14, 2017); Cause of Action Comments at 2; CenturyLink Comments at 32; Cox Comments at 31; Daniel Oglesby Comments at 3; Free State Foundation Comments at 56; Sprint Comments at 6; Verizon Comments, Lerner & Ordover Decl. at 9. For the reasons explained in this paragraph, we thus reject claims that the standard is not unduly vague or open-ended. *See, e.g.*, Internet Association Comments at 30 (asserting the Internet Conduct Standard is not vague or open-ended and is similar to the rule adopted by the Commission in 2010 which also prohibited unreasonable discrimination and was generally not opposed by ISPs); Public Knowledge Comments at 123-124 (asserting the *Title II Order* provides extensive guidance on how the conduct standard would be applied—"explanations of each factor in combination with the option to obtain an Advisory Opinion puts broadband providers on more than sufficient notice of what conduct they are and are not permitted to engage in.").

[887] AT&T Comments at 51; TIA Reply at 5. The few concrete examples of actual business practices that could be subject to the Internet Conduct Standard all involve zero-rating or sponsored data. *See Title II Order*, 30 FCC Rcd at 5666-69, paras. 151-53.

[888] *See id*.at 5661-62, para. 139.

[889] *See, e.g.*, Engine Comments at 28; ESA Comments at 10; Free Press Comments at 66; Vimeo Comments at 17.

[890] *See, e.g.*, ADTRAN Comments at 23; AT&T Econ. Decl. at 49, para. 92 ("Given this history and the Commission's explicit reservation of a right to condemn conduct based on additional, unspecified considerations in the future, the industry has every reason to expect further regulation, expanded application of Title II and the Internet Conduct Standard in novel ways, and regulation of more and more services."); Comcast Comments at 69; Free State Foundation Comments at 31; National Multicultural Organizations Comments at 17; NCTA Comments at 43.

[891] *Title II Order*, 30 FCC Rcd at 5791, para. 410.

[892] We also observe that because FTC and antitrust authority apply across industries, further precedent is likely to develop more quickly, while a sector-specific general conduct rule is likely to develop more slowly.

addresses new practices that might develop with less harm to innovation.[893] While antitrust laws use a consumer welfare standard defined by economic analysis to evaluate harmful conduct, the Internet Conduct Standard includes a non-exhaustive grab bag of considerations that are much broader and hazier than the consumer welfare standard, and leaves the door open for the Commission to consider other factors or unspecified conduct it would like to take into account.[894]

249. We anticipate that eliminating the vague Internet Conduct Standard will reduce regulatory uncertainty and promote network investment and service-related innovation. As we discussed above, regulatory uncertainty serves as a major barrier to investment and innovation.[895] The record reflects that ISPs and edge providers of all sizes have foregone and are likely to forgo or delay innovative service offerings or different pricing plans that benefit consumers, citing regulatory uncertainty under the Internet Conduct Standard in particular.[896] Indeed, these harms are not limited to ISPs—the rule "creates paralyzing uncertainty for app developers and other edge providers," as well as equipment manufacturers.[897] Even some proponents of Title II acknowledge these public interest harms.[898]

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[893] *See*, *e.g.*, Acting Chairman Ohlhausen Comments at 9-12; FTC Staff Comments at 21-29. As such, we reject assertions that eliminating the general conduct rule will prevent regulatory authorities from taking action in the future. *See, e.g.*, Home Telephone Company Comments at 20.

[894] *See supra* Part III.C.3.

[895] *See supra* Part III.C.1.

[896] *See, e.g.*, Comcast Comments at 37, 45, 72 (stating that the FCC's year-long investigation into Comcast's Stream TV, which was not even an Internet service, resulted in an 18-month delay in the launch of this service); Comcast Reply at 32; ACA Comments at 19-22 ("ACA members reported a range of negative impacts on their ability and incentive to develop and deploy innovative new features and services and the need to alter existing business models as a result of being subjected to . . .[the Internet Conduct Standard]. Impacts included holding off or delaying moving to usage-based billing and data caps and allowances, changing or abandoning existing use of these models, and holding off or delaying launching 'individualized' arrangements with edge providers that would improve the end user experience because of the uncertainty created by . . ." the Internet Conduct Standard) (citing attached Hickle Decl. at paras. 11, 14; Kyle Decl. at para. 5; Sjoberg Decl. at para. 11-13)), 64 & n.207 (noting Mr. Sjoberg and other ACA members explained that "just knowing that the Commission was investigating the data cap and pricing practices of the larger ISPs had a chilling effect on [their] willingness to use data caps") (citing Sjoberg Decl. at para. 12; Hickle Decl. at para. 11; Kyle Decl. at para. 15)); AT&T Comments at 51-52; Charter Comments at 11 (asserting that it "put on hold a project to build out its out-of-home Wi-Fi network, due in part to concerns about whether future interpretations of Title II would allow Charter to continue to offer its Wi-Fi network as a benefit to its existing subscribers" and that "[s]imilar concerns about the potential consequences of applying Title II obligations to Charter's own networks also contributed to Charter's decision, last year, to delay and then move more slowly with plans to launch a wireless service"); Cox Comments at 2-3, 16 (stating that it has approached the "development and launch of new products and service features with greater caution, thereby impacting its ability to quickly meet the ongoing demands of its customers within a highly competitive marketplace" due to the uncertainty created by the *Title II Order* and Internet Conduct Standard); Free State Foundation Comments at 56; NCTA Comments at 38-40 (noting that NCTA's members are on record explaining that the Internet Conduct Standard "has had a significant negative impact on product development, deployment, and time to market"); Sprint Comments at 6; WISPA Comments at 2, 33; Cox Reply at 9-10; Mobile Future Reply at 6; TIA Reply at 6; Letter from 19 Municipal ISPs at 2 (contending these Muni ISPs "often delay or hold off from rolling out a new feature or service because we cannot afford to deal with a potential complaint and enforcement action."); Letter from Bluegrass Cellular, Inc. et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1 (filed May 11, 2017) (asserting the uncertainty for wireless providers hinders the ability to meet customers' needs and "inhibits [their] ability to build and operate networks in rural America"); *see also supra* paras. 99-102.

[897] NCTA Reply at 33 (referring to ACT Comments at 3); *see also* Ericsson Comments at 7; Nokia Comments at 8-9.

[898] *See, e.g.*, Peha Light-Touch Regulation Comments at 5-6 ("In the absence of guidance [on what the general conduct standard is designed to prohibit], BIAS providers may be deterred from offering services that would not violate regulations and would benefit consumers, or they may not be deterred from offering services that are harmful

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Commenters also note that "money spent on backward-looking regulatory compliance is money not spent on more productive uses, such as investments in broadband plant and services."[899] We anticipate that eliminating the Internet Conduct standard will benefit consumers, increase competition, and eliminate regulatory uncertainty that has "a corresponding chilling effect on broadband investment and innovation."[900]

250. The now-rescinded Zero-Rating Report issued by the Wireless Telecommunications Bureau illustrates the uncertainty ISPs experience as a result of the Internet Conduct Standard adopted in the *Title II Order*.[901] As described in the Report, "zero-rated" content, applications, and services are those that end users can access without the data consumed being counted toward the usage allowances or data caps imposed by an operator's service plans.[902] But following a thirteen-month investigation during which providers were left uncertain about whether their zero-rating practices complied with the Internet Conduct Standard, the Report still did not identify specific evidence of harm from particular zero-rating programs that increased the amount of data that consumers could use or provide certainty about whether particular zero-rating programs were legally permissible.[903] Instead, it offered a "set of overall considerations" that it said would help ISPs assess whether a particular zero-rating plan violates the *Title II Order*.[904] The now-rescinded *Zero-Rating Report* demonstrated that under the Internet Conduct Standard ISPs have faced two options: either wait for a regulatory enforcement action that could arrive at some unspecified future point or stop providing consumers with innovative offerings.

251. We anticipate that eliminating the vague Internet Conduct Standard will also lower compliance and other related costs.[905] The uncertainty surrounding the rule "establishes a standard for behavior that virtually requires advice of counsel before a single decision is made" and raises "costs [especially for smaller ISPs that] struggle to understand its application to their service prices, terms, conditions, and practices."[906] Smaller ISPs contend that they cannot "afford to be the subject of

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to consumers. . . [I]t is clear that leaving the 'Internet conduct standard' in its current form is not the best option."); EFF Comments at 28-29 ("[T]he Commission nevertheless has significant discretion to weigh these factors in every case. Accordingly, the burden on regulated providers in litigating such cases ad hoc could discourage innovation and impede the Internet's continued growth as a platform for speech, commerce, and social activity.").

[899] ACA Reply at 12-13 & n.33; *see also supra* paras. 89-98.

[900] Comcast Comments at 69.

[901] *See* Wireless Telecommunication Bureau, Policy Review of Mobile Broadband Operators' Sponsored Data Offerings for Zero Rated Content and Services (WTB Jan. 11, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf (*Zero Rating Report*); *see also, e.g.*, ACA Comments at 63-64; ACT Comments at 3; ADTRAN at 17; AT&T Econ. Decl. at 6, para. 23; Comcast Comments at 70-71; CTIA Comments at 12; Downes Comments at 24; National Multicultural Organizations Comments at 17-18; NCTA at 37, 43.

[902] *Zero Rating Report* at 2.

[903] *Id*. at 15 (explaining that "we lack the information at this time, needed to assess whether AT&T's current sponsored data price to third party providers . . . is reasonable under this standard").

[904] *Id*. at 10.

[905] *See, e.g.*, ACA Comments at 61, 64; Comcast Comments at 38; Cox Comments at 31 ("Cox (like other BIAS providers) has been forced to undertake additional costly and open-ended regulatory reviews to consider whether new products and services could be alleged to run afoul of this extraordinarily vague standard, and has approached such decisions more cautiously."); CTIA Comments at 27; NCTA Comments at 38-40; Verizon Comments at 13; WISPA Comments at 11; 70 Small WISPs May 9, 2017 Letter at 2.

[906] ACA Comments at 61, 64 ("Because the rule is so vague and open-ended, it required smaller ISPs to consult with counsel for both retrospective reviews of existing services and practices and prospective reviews of future plans to reduce the risk of Commission enforcement actions or consumer complaints. The addition of retrospective and prospective regulatory compliance reviews under the Internet General Conduct standard increased ACA members'

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enforcement actions by the Commission or defend themselves before the Commission as a result of consumer complaints, because the costs of having to defend their actions before the Commission in Washington are enormous, relative to their resources."[907] ISPs "that are required to defend themselves against arbitrary enforcement actions and/or frivolous complaints will not have the time or financial resources to invest in their business. The costs of such compliance will likely be passed onto consumers via higher prices and/or limited service offerings and upgrades."[908] The record reflects widespread agreement from commenters with otherwise-divergent views that the Internet Conduct Standard creates significant harm without countervailing benefits.[909]

252. We are further persuaded that the advisory opinion process introduced in the *Title II Order* "offers no real relief from the unintended consequences of the Internet Conduct Standard."[910] The record reflects that the Internet Conduct Standard and the advisory opinions available under it "[are] completely divorced from the rapid pace of innovation in the mobile marketplace" because ISP innovations would be indefinitely delayed while the Commission conducts a searching analysis of any such offering that might violate the standard.[911] The fact that no ISP has requested an advisory opinion in

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legal and consulting costs, diverting scarce resources from service and network improvements."); WISPA Comments at 11 (asserting the standard particularly effects smaller ISPs that "may be poorly equipped to address the legal, technical, and financial burdens associated with an uncertain regulatory environment"); TIA Reply at 4; Comcast Reply at 32; CTIA Reply at 38 n.152; NCTA Reply at 33 n.117; WISPA Reply at 7-8 (all agreeing that the standard results in overburdening providers with the costly need to involve counsel in every business decision).

[907] ACA Comments at 64; *see also* WISPA Reply at 7 (contending the "impact of this uncertainty falls particularly heavy on WISPs and other small service providers, who have little margin to absorb additional regulatory compliance and litigation expenses"); Invisimax, Airlink Internet Services, & Amplex Electric December 8, 2017 *Ex Parte* Letter; Sjoberg's December 8, 2017 *Ex Parte* Letter; Letter from Jason B. Williams, Chief Executive Officer, Blackfoot, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Dec. 8, 2017).

[908] WISPA Comments at 33; *see also* ACA Comments at 64-65 ("Given that the risks are high . . . smaller ISPs tend to err on the side of caution, even if that means depriving their customers and communities of innovative features and services that would be highly beneficial and forgoing the increased revenues these offerings would provide. These lost opportunity costs also weigh strongly against retention of the standard.").

[909] *See, e.g.*, ACT Comments at 3; AT&T Comments at 51-52; Bennett Comments at 3; CenturyLink Comments at 32; CTIA Comments at 9-12; EFF Comments at 28-29; Peha Light-Touch Regulation Comments at 5-6; Sprint Comments at 5-7; NCTA Reply at 32. Many commenters assert that the Commission should eliminate the Internet Conduct Standard. *See, e.g.*, AT&T Comments at 51-6l; Comcast Comments at 67-72; Cisco Comments at 14-16; NCTA Comments at 43-45; USTelecom Comments at ii; Comcast Reply at 33.

[910] ACA Reply at 18; *see also* ADTRAN Comments at 23-24; AT&T Comments at 51-52 (asserting this "mother-may-I regime is a parody of bureaucratic overreach" that ISPs would rarely invoke and "might well increase their liability for increased forfeiture penalties if the Commission later concludes that staff's 'maybe' answer had put them on due notice of potential concerns"); Comcast Comments at 72-73 ("The 'advisory opinion' process established in the Title II Order offers no real relief from these harmful, unintended consequences of the general conduct standard. As Chairman Pai has remarked, 'seeking the government's blessing in advance is precisely the opposite of permission-less innovation.' In fact, the process seems only to add to the cost and uncertainty of compliance with the substantive standard. In order to take advantage of the process, ISPs must reveal detailed future business plans, subject to a potential request for more information from the Commission. Even then, there is no guarantee that the Commission would issue an opinion, much less in a timely manner that would align with ISPs' business planning needs. Nor would the issuance of an opinion provide any real assurances to ISPs, as the opinions would not be binding and could be rescinded at a later time."); WISPA Comments at 68-69 ("The absence of specific timeframes for the Bureau to act makes the value of Advisory Opinions illusory and essentially unavailable to small providers."); TIA Reply at 6.

[911] CTIA Reply at 39; *see also* ADTRAN Comments at 23 ("While it may have been tolerable to conduct years-long investigations of monopoly-era tariffs under the similarly vague 'just and reasonable' standard, ISPs cannot engage in the competitive, fast-paced Internet marketplace under such conditions.").

the two years since the launch of the advisory opinion process reinforces our conclusion that the process is too uncertain and costly.[912] As such, we reject commenters' assertions to the contrary.[913]

b. Paid Prioritization

253. We also decline to adopt a ban on paid prioritization. The transparency rule we adopt, along with enforcement of the antitrust and consumer protection laws, addresses many of the concerns regarding paid prioritization raised in this record. Thus, the incremental benefit of a ban on paid prioritization is likely to be small or zero. On the other hand, we expect that eliminating the ban on paid prioritization will help spur innovation and experimentation, encourage network investment, and better allocate the costs of infrastructure, likely benefiting consumers and competition.[914] Thus, the costs (forgone benefits) of the ban are likely significant and outweigh any incremental benefits of a ban on paid prioritization.[915]

254. *Innovation*. We anticipate that lifting the ban on paid prioritization will increase network innovation, as the record demonstrates that the ban on paid prioritization agreements has had, and will continue to have, a chilling effect on network innovation generally, and on the development of high quality-of-service (QoS) arrangements—which require guarantees regarding packet loss, packet delay, secure connectivity, and guaranteed bandwidth—in particular.[916] As CTIA argues, the *Title II Order* implicitly recognized this point, but its insistence that these arrangements be treated as non-broadband Internet access data services reduced the flexibility of ISPs and edge providers, created uncertainty about the line between non-broadband Internet access data services and broadband Internet access services, and likely reduced innovation.[917] The record reflects that the ban on paid prioritization has hindered the

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[912] *See infra* para.303; *see also, e.g.*, Comcast Comments at 72-73; WISPA Comments at 68-69; ACA Reply at 17.

[913] *See, e.g.*, OTI New America Comments at 61; Public Knowledge Comments at 123-25.

[914] For these reasons and because we find that eliminating the ban on paid prioritization arrangements could lead to lower prices for consumers for broadband Internet access service, we find that our action benefits low-income communities and non-profits, and we reject arguments to the contrary. *Cf.* Mayors Letter at 1; Letter from American Council on Education et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O'Rielly, Commissioner, The Honorable Brendan Carr, Commissioner, and The Honorable Jessica Rosenworcel, Commissioner, FCC, WC Docket No. 17-108, at 2 (filed Dec. 7, 2017) (ACE et al. *Ex Parte*). We reject the argument that the benefits of our elimination of the paid prioritization ban must be "uniform across providers or geographic areas." ACE et al. *Ex Parte* at 2. This is an unnecessarily high and rigid threshold. The public—including low-income communities—benefits, and that is enough.

[915] *See infra* paras. 319-321.

[916] *See* Cause of Action Comments at 3-4; R Street Comments at 23; Theodore R. Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment*, Perspectives from FSF Scholars at 3 (May 1, 2017) (asserting that ban hurts edge providers in new industries which may require a high level of end-to-end reliability); Free State Foundation Comments at 52 ("The benefits from video phone calls and video streams, for example, are reduced when data traffic congestion causes transmission delays. Paid prioritization agreements that provide Quality-of-Service guarantees could enhance the attractiveness and value of these services. Indeed, innovative edge providers have expressed willingness to pay broadband ISPs for some form of premium access, such as ensured faster delivery, in order to deliver a satisfactory consumer experience."); CTIA Comments at 14 ("Particularly in the mobile wireless market, [the flat ban] may undermine future broadband offerings that enhance consumer welfare."); AT&T Comments at 40-41; TIA Comments at 10-11 ("Capabilities such as remote health-care monitoring, health service delivery by mobile networks, and connected vehicle technologies will all require networks that can ensure a level of service quality that current networks cannot today fully support."); Verizon Comments at 20-21; Comcast Comments at 55-57; Nokia Comments at 9-12.

[917] *See* CTIA Comments at 14-16 (asserting that "whereas this approach might exempt specific applications that the Commission can identify in advance as requiring QoS enhancement, it imposes severe limits and burdens on *emerging* QoS-enabled Internet access applications, which will be subject at best to grave uncertainty and at worst an outright ban on needed prioritization"); *see also* Nokia Comments at 9 ("From an engineering viewpoint, those

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deployment of these services by denying network operators the ability to price these services, an important tool for appropriately allocating resources in a market economy.[918] Further, as commenters note, there has been significant uncertainty about the scope of the prohibition on paid prioritization arrangements.[919] Some commenters contend that this uncertainty surrounding network operators' ability to provide "differentiated services" has cast a shadow on the development of next generation networks.[920]

255. We also expect that ending the flat ban on paid prioritization will encourage the entry of new edge providers into the market, particularly those offering innovative forms of service differentiation and experimentation.[921] As ITTA explains, "[i]t is routine for entities that do business over the Internet to pay for a variety of services to provide an optimal user experience for their customers. Companies have

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services that benefit from 'paid prioritization' have similar characteristics to 'specialized services' in that they are services that benefit from some level of guaranteed quality of service, thereby differentiating them from services or applications that run on the 'best effort' broadband Internet access service."); AT&T Comments at 39 ("Certain Internet applications—such as high-definition videoconferencing and multi-player online gaming—also have unusually acute QoS needs but are less susceptible to a 'managed service' solution because they often involve participants using many different ISP networks. . . The ISPs connecting these gamers to the Internet could thus greatly enhance the gaming experience for all participants by marking the relevant packets for special delivery in the event of congestion at peering points and anywhere else those packets are exchanged between IP networks. Such an arrangement would make gaming enthusiasts substantially better off.").

[918] *See* R Street Comments at 24 ("Practices that benefit consumers do not suddenly become harmful just because money changes hands."); AT&T Comments at 40-41 (explaining that "industry participants might need to attach price signals to such QoS guarantees by charging for them, just as market participants in any other industry routinely ensure allocative efficiency by monetizing scarce resources rather than giving them away for free. The use of price signals would match QoS guarantees with the latency-sensitive applications and content that need them most in order to function optimally. Otherwise, *all* packets might ultimately be marked for special handling, and thus none would actually receive it"). We reject commenter assertions that banning the use of price as a signal provides more accurate price signals. *See* Ad Hoc Comments at 18-19 (asserting the ban allows "non-subscribers . . . to act on accurate price signals"). Relatedly, we reject the argument that non-price signals, including user-directed prioritization, are by themselves sufficient to allow innovation and development in this area, because in a market system, price signals are generally necessary to efficiently allocate resources. *See* Peha Light Touch Comments at 8, 10; Ad Hoc Comments at 18-19; TDI et al. Comments at 13; Public Knowledge Reply at 31-32; OTI New America Reply at 24.

[919] TIA Comments at 10-11; Nokia Comments at 13 ("[T]here is no industry consensus on whether the current Open Internet rules that prohibit paid prioritization apply only to arrangements between edge providers and broadband Internet access providers or also preclude customer facing (or requested) requests for fee based technical prioritization."); CTIA Comments at 14-16.

[920] *See, e.g.*, Ericsson Comments at 7 ("Any limitation on this sort of customization could have the further effect of prohibiting network slicing . . . Networks have the technological capability to provide an array of beneficial, differentiated services to consumers. But because the existing regime discourages operators from making such offerings (and may even penalize them for doing so), that potential may not be realized and consumers may never see what they are missing."); Christopher Yoo Reply at 33 ("5G offers the promise of software defined networking and network function virtualization, in which network services are no longer provided by integrated companies, but rather by independent companies that allow customers to lease resources temporarily on a transactional, temporary, set-up and take-down basis [which] . . . is often described in the 5G context as network slicing. The problem is that network slicing is widely perceived as being inconsistent with net neutrality.").

[921] Ericsson Comments at 5 ("Fostering an environment that encourages differentiated services is important because some online activities require only a minimal amount of bandwidth but extremely low latency; other uses may require greater bandwidth."); Economic Scholars Comments at 6 (finding that most peer-reviewed economic articles on net neutrality "find that some content providers value the features that could be offered [if the flat ban on paid prioritization was lifted] and so regulations lower content value"); Nokia Comments at 9-15; *see also* Katz, *Wither U.S. Net Neutrality Regulation?*, at 457-58 (asserting that it is well established in economic literature that paid prioritization can facilitate entry).

been doing so for years without disturbing the thriving Internet ecosystem."[922] We therefore reject arguments that the ban is necessary to provide a level playing field for edge providers.[923] Indeed, in other areas of the economy, paid prioritization has helped the entry of new providers and brands.[924] It is therefore no surprise that paid prioritization has long been used throughout the economy.[925] Paid prioritization could allow small and new edge providers to compete on a more even playing field against large edge providers, many of which have CDNs and other methods of distributing their content quickly to consumers.[926]

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[922] ITTA Comments at 6; *see also* Katz, *Wither U.S. Net Neutrality Regulation?*, at 454-55 (asserting that the level playing field argument for the ban on paid prioritization proves too much: firms in other industries are not prohibited from buying inputs on non-neutral basis, and the level playing field argument wrongly focuses on competitor welfare rather than consumer welfare or efficiency).

[923] *See* Y Combinator Comments at 3-4; Meetup Comments at 5-7; FarmLogs Comments at 4-5; Etsy Comments at 4-5; Scaramella & Hoofnagle Comments at 4-5; Free Press Comments at 69; Internet Association Comments at 22; American Association of Community Colleges et al. Comments at 13; AARP Comments at 23; National Association of Realtors Comments at 2; DigitalOcean Comments at 6; Free Press Comments at 69; Sen. Schatz Reply at 1; Web Foundation Reply at 8-9.

[924] *See* Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 7 (citing as an example food manufacturers paying grocery stores for appealing places in the store); Benjamin Klein and Joshua D. Wright, *The Economics of Slotting Contracts*, 50 J. Law. & Econ. 421, 442-43 (2007) ("[All] major existing theories of slotting . . . claim that the increase in slotting since the early 1980s can be explained by the increase in new supermarket products. The annual number of new supermarket product introductions has increased more than eight-fold over this period, from 2,782 new products introduced in 1981 to 23,181 new products introduced in 2003."). Klein and Wright also note that "[t]he primary competitive concern with slotting arrangements is the claim that they may be used by manufacturers to foreclose or otherwise disadvantage rivals, raising the costs of entry and consequently increasing prices [ref. omitted]. It is now well established in both economics and antitrust law that the possibility of this type of anticompetitive effect depends on whether a dominant manufacturer can control a sufficient amount of distribution so that rivals are effectively prevented from reaching minimum efficient scale." *Id.* at 422. Thus, in the unlikely event that a dominant edge provider tried to buy up so much ISP capacity that a rival edge provider could not achieve minimum efficient scale, this conduct could be challenged under the antitrust laws.

[925] Daniel Berninger Comments at 1; MediaFreedom Comments at 2; Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment*, at 3, 7-8 (asserting that in other industries, paid prioritization encourages investments that benefit all consumers and lower prices for price-sensitive customers); ACLP Comments at 19-20 (citing consumer-friendly paid prioritization arrangements in other areas of the economy, including package delivery, 'freemium' content, and TSA Precheck); Free State Foundation Comments at 50-51 ("Paid prioritization arrangements are common throughout the economy. Evidence from other markets shows that paid prioritization arrangements that develop without regulatory intervention generally lead to more capital investment and benefit consumers. Many states now offer optional 'fast lanes' on highways, for a toll, as a way of attracting investment for highway projects. Commuters who want to avoid the tolls are not excluded from the highway, while commuters willing to pay for a faster trip have that option."); Comcast Comments at 61-63; AT&T Comments at 41 n. 73 ("[P]aid prioritization arrangements are so ubiquitous outside the Internet context that they are an accepted part even of *regulated common carrier regimes* involving transport *monopolists*.").

[926] Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 9 (asserting that the ban may discourage entry of new edge providers, because paid prioritization could allow them to quickly scale up); Media Freedom Comments at 2 ("[S]mall start-ups want the flexibility to partner with ISPs in paid priority arrangements (or other forms of service differentiation) in order to get a leg up, or at least stay competitive with, their larger, well-heeled competitors."); Free State Foundation Comments at 52; CEI Comments at 3; Nokia Comments at 13-15. We thus reject arguments that allowing pro-competitive paid prioritization will reduce the entry and expansion of small, new edge providers. *See* Digital Content Next Comments at 3; DigitalOcean Comments at 6; Voices Coalition Comments at 43; Sen. Schatz Reply at 1; OTI Reply at 25-26; Public Knowledge Comments at 112-13 ("Prior to the FCC's adoption of these rules, venture capitalists observed that because the possibility of paid prioritization, they planned to 'stay away from' startups working on video and media businesses and noted that a proposal to allow some forms of paid prioritization added 'another impediment to the already

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256. *Efficiency*. We find that a ban on paid prioritization is also likely to reduce economic efficiency, also likely harming consumer welfare. This finding is supported by the economic literature on two-sided markets such as this one, and the record.[927] If an ISP faces competitive forces, a prohibition against two-sided pricing (i.e., a zero-price rule), while benefiting edge providers, typically would harm both subscribers and ISPs.[928] Moreover, the level of harm to subscribers and ISPs generally would exceed the gain obtained by the edge providers and, thus, would lead to a reduction in total economic welfare.[929] The reasons for this are straightforward. Some edge services and their associated end users use more data or require lower latency; this may be the case, for example, with high-bandwidth applications such as Netflix, which in the first half of 2016 generated more than a third of all North American Internet traffic.[930] Without paid prioritization, ISPs must recover these costs solely from end users, but ISPs cannot always set prices targeted at the relevant end users. The resulting prices create inefficiencies. Consumers who do not cause these costs must pay for them, and end users who do cause these costs to some degree free-ride, inefficiently distorting usage of both groups. When paid prioritization signals to edge providers the costs their content or applications cause, edge providers can undertake actions that would improve the efficiency of the two-sided market. For example, they could invest in compression technologies if those come at a lower cost than paid prioritization, enhancing efficiency, or, if they have a pricing relationship with their end users, they could directly charge the end

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challenging fund-raising environment for digital media startups.'") (citations omitted); Engine Comments at 11 (asserting it is "absurd to think that [startups] could outbid some of the largest companies in the world for priority access. Startups simply do not have sufficient capital to pay access or prioritization fees of any kind."). In so finding, we do not mean to suggest that CDN services themselves constitute paid prioritization.

[927] *See* Economic Scholars Comments at 4-6, 10 (reviewing peer-reviewed articles on net neutrality and finding that "[m]ost the articles . . . conclude that regulatory restrictions on what enhanced services ISPs may offer to content providers can lower economic efficiency"). The *Title II Order* cited three papers by economist Michael Katz to support its conclusions about paid prioritization—fully half of the economic literature cited in favor of the ban. *See Title II Order*, 30 FCC Rcd at 5655, para. 126 & nn.296-97. In response, Katz has written that his papers simply "do not" support the conclusions of the *Title II Order*. Katz, *Wither U.S. Net Neutrality Regulation?* at 459. *See also* Benjamin E. Hermalin and Michael L. Katz, *The Economics of Product-Line Restrictions with an Application to the Network Neutrality Debate*, 19 Info. Econ. & Pol. at 215-48 (2007) (demonstrating that regulations that require a platform owner to provide a single quality of service can reduce economic welfare). Modeling by Commission staff finds economic efficiency is often enhanced when the ISP can engage in either linear or nonlinear pricing on the edge provider side of the market. *See* Mark Bykowsky and William W. Sharkey, *Welfare Effects of Paid for Prioritization Services: A Matching Model with Non-Uniform Quality of Service* (2014) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2468202; *see also* Michelle Connolly et al., *The Digital Divide and Other Economic Considerations for Network Neutrality*, 50 Rev. Ind. Organ. 537, 548 (2017) ("[D]ifferent network platforms are better suited for different content applications. Therefore, even if ISPs do engage in some form of product differentiation, the content applications that they respectively prioritize would most probably differ") (Connolly et al., *Digital Divide*); Cisco Comments at 15; ITTA Comments at 6; ACLP Comments at 19; CWA/NAACP Comments at 14; Comcast Comments at 55-57; Nokia Comments at 12-13.

[928] Victoria Kocsis & Paul Bijl, *Network neutrality and the nature of competition between network operators*, 4 Int'l Econ. & Economic Pol'y 159, 180-181 (2007) (finding ISP competition would generally reduce the harms, if any, of paid prioritization); M. Bykowsky & W.W. Sharkey, *Net Neutrality and Market Power: Economic Welfare with Uniform Quality of Service* at 6 (2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2468188 (finding ISPs, facing competition, set economically efficient prices to both sides of the market, and a zero price to edge providers is only efficient in special cases).

[929] Greenstein et al. at 137-38 ("[F]or end users . . . restricting internet service providers to one-sided pricing reduces total welfare and reduces the surplus received by the user, while content providers benefit from this regulatory intervention.").

[930] Sandvine, *2016 Global Internet Phenomena Report: Latin America and North America* at 2, https://www.sandvine.com/downloads/general/global-internet-phenomena/2016/global-internet-phenomena-report-latin-america-and-north-america.pdf.

user for priority, leading those end users to adjust their usage if the user's value does not exceed the service's cost, again enhancing economic efficiency.[931] And to the extent an ISP has market power, antitrust and consumer protection laws could be used to address ISPs' anti-competitive paid prioritization practices.[932] Given the extent of competition in Internet access supply, we find a ban on paid prioritization is unlikely to improve economic efficiency, and if it were to do so it would only be by accident (i.e., if the efficient second-best was to require ISPs to provide access to edge providers at a zero price).[933]

257. *Network investment.* The mere possibility that charging edge providers may sometimes be economically inefficient is not sufficient to overcome the general presumption that allowing firms additional pricing tools generally enhances economic efficiency, especially when investments must be made as demand rises to reduce congestion. The economic literature and the record both suggest that paid prioritization can increase network investment.[934] For example, one study presents a model in which two

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[931] Reason Foundation Comments at 11 ("[P]aid prioritization is an efficient and fair solution to the challenges created by bandwidth-hogging content. It enables the platform providers—broadband ISPs—effectively and efficiently to balance the two sides the market that they intermediate. And it ensures that content consumers and other users each pay a fair price for access to content."); Christopher Yoo Reply at 34 ("If paid prioritized services are not permitted, all costs of increasing network capacity will be included into the subscription fees charged by Comcast. If paid prioritization is permitted and Netflix makes a side payment to Comcast, the result should be a slightly lower monthly payment to Comcast and a slightly higher monthly payment to Netflix."); Connolly et al., *Digital Divide*, at 543 ("[I]n an unregulated market, ISPs have the incentive to transfer some surplus from [edge providers] to *consumers* in order both to retain existing customers and to attract new customers. Specifically, ISPs could charge [edge providers] higher prices in order to lower the last-mile fees for consumers in an attempt to maximize their end-user subscriptions."). We disagree with commenters asserting that this is likely to significantly burden edge providers by requiring them to negotiate with hundreds of ISPs because as discussed, paid prioritization is likely to be focused only on applications that require special QoS guarantees. *See supra* paras. 254-255; *cf.* Internet Association Comments at 22-23 ("Allowing paid prioritization would in effect result in the 'cable-ization' of the Internet, in which edge providers (like creators of video programming in the cable context) would have to negotiate carriage deals on ISP networks in order to reach consumers effectively."); AARP Comments at 22 ("[E]dge provider[s] would have to negotiate with a large number of broadband providers to reach fast-lane agreements to cover all broadband mass-market customers").

[932] Judicial Watch Comments at 9-10 ("Allowing a two-sided market to flourish is more effective than regulation for keeping consumer prices low even in true monopoly provider cases, which broadband internet is likely not, given the ubiquity of wireless broadband."); *see also* Nicolas Economides and Benjamin E. Hermalin, *The Economics of Net Neutrality*, 43 RAND J. Econ. at 602-629 (2012) (finding that paid prioritization may or may not increase total welfare, depending on the elasticity for content with respect to transmission time (i.e., quality of service)).

[933] Economic Scholars Comments at 4-6; *see also* Hermalin and Katz, *The Economics of Product-Line Restrictions with an Application to the Network Neutrality Debate*, 19 Info. Econ. & Pol'y at 215-248 (demonstrating that regulations that require a platform owner to provide a single quality of service can reduce economic welfare); Armstrong at 668-691; Jean-Charles Rochet and Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. Econ. at 645-667 (2006).

[934] Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment*, at 6 (asserting that banning paid prioritization is likely to reduce investment by ISPs, because ISPs are less likely to benefit from their investments); Cisco Comments at 15; ITTA Comments at 6; Nokia Comments at 5 ("[ISPs] are restricted from exploring revenue sources that could alleviate the burden consumers carry for funding network upgrades and expansions."); CWA/NAACP Comments at 15 (allowing paid prioritization "provides the broadband providers with a revenue stream, encouraging increased infrastructure investment by increasing the return on that investment"). Thus, we reject the argument that the ban is necessary to ensure long-term network investment. *See* INCOMPAS Comments at 81-82 ("The NPRM does not address the potential long-term effects of paid prioritization, which would shift consumers away from the ordinary Internet and onto prioritization plans and discourage broadband providers from making network investments that would reduce scarcity and, accordingly, increase their ability to sell

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competing ISPs serve a continuum of edge providers.[935] It finds that allowing ISPs to offer paid prioritization leads to higher investment in broadband capacity as well as greater innovation on the edge provider side of the market. According to the authors, paid prioritization causes the ISP to invest more in network capacity, reducing congestion and thereby inducing congestion-sensitive edge providers to enter the market. The increased ISP investment occurs for two reasons: incremental investment is more profitable because the ISP can now charge edge providers in addition to subscribers, and paid prioritization allows more edge providers who need a high quality of service to enter the market. Another study also develops a theoretical model in which paid prioritization always results in higher ISP investment.[936] We anticipate that lifting the ban on paid prioritization may also increase the entry of new ISPs and encourage current providers to expand their networks by making it easier for "ISPs [to] benefit from their new investments."[937]

258. We reject assertions that allowing paid prioritization would lead ISPs to create artificial scarcity on their networks by neglecting or downgrading non-paid traffic.[938] This argument has been strongly criticized as having "no support in economic theory that such incentives exist or are sufficiently strong as to outweigh countervailing incentives."[939] Moreover, as discussed above, in practice paid

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prioritized delivery—resulting in the breakdown of the virtuous circle."); Internet Association Comments at 28; Public Knowledge Comments at 113-15.

[935] Marc Bourreau, Frago Kourandi, and Tommaso Valletti, *Net neutrality with competing internet platforms*, 63 J. Ind. Econ. (2015). Economides and Hermalin, *The Economics of Net Neutrality* (2012), also find that allowing the ISP to offer paid prioritization unambiguously results in the ISP investing in additional bandwidth. Also included in the debate involving the welfare effects of removing certain pricing restrictions on ISPs is the question of the effect of such a removal on the incentive of the ISP to increase bandwidth. Choi and Kim find the welfare effect of allowing an ISP to offer paid prioritization depends importantly on the parameters of their model. *See* Jay Pil Choi and Byung-Cheol Kim, *Net Neutrality and Investment Incentives*, 41 RAND J. Econ. at 446-471 (2010).

[936] Paul Njoroge, Asuma Ozdaglar, Nicolás E. Stier-Moses, and Gabriel Y. Weintraub, *Investment in Two-Sided Markets and the Net Neutrality Debate*, 12 Rev. Network Econ. at 355-402 (2013).

[937] Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 6; *see also* Cause of Action Comments at 3-4 (allowing paid prioritization will help small ISPs raise additional capital); R Street Comments at 24-25 ("Smaller broadband providers . . . often lack the resources to beat the prices of established competitors directly, but they can make deals and take risks to provide innovative new services. Some broadband providers in the United Kingdom, for example, have started offering plans that prioritize traffic for VoIP and gaming applications. Such offerings allow broadband providers to differentiate their service offerings and better compete with other providers.").

[938] *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5653-54, para. 126; Vimeo Comments at 14; Internet Association Comments at 22; Consumers Union Comments at 15; Public Knowledge Comments at 113; Netflix Reply at 8-9; *see also* AARP Comments at 22 ("Pay-for-priority and fast lanes will cause customer confusion and will degrade the value of broadband connections. Incentives consumers would have to upgrade to higher capacity broadband connections will be muted, as the full value of more bandwidth can only be achieved if *all web sites and content* have the potential to be delivered at the "up to" speed for which broadband subscribers pay.").

[939] *See* J. Gregory Sidak and David J. Teece, *Innovation Spillovers and the "Dirt Road" Fallacy: The Intellectual Bankruptcy of Banning Optional Transactions for Enhanced Delivery Over the Internet*, 6 J. Competition L. & Econ. at 521-594 (2010); *see also* AT&T Comments at 42 ("Mobile and fixed-line providers would not be investing tens of billions of dollars a year to increase their speeds . . . if it were commercially viable for them to consign their customers to a 'dirt road' in any context. If Broadband Provider X began degrading its best-effort Internet access platform to favor its 'prioritized' content, such that most applications and content loaded more slowly on X's network than on its rivals' Internet access platforms, customers would begin switching to those rivals en masse."). While other studies are more equivocal, even studies finding that there may be an effect find that it does not reduce economic efficiency, but merely transfers costs from ISPs to certain edge providers. Employing simulations to test the robustness of their welfare results, Commission staff in 2014 found that in many simulations the welfare of edge
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prioritization is likely to be used to deliver enhanced service for applications that need QoS guarantees.[940] As AT&T explains, "[l]ast-mile access is not a zero-sum game, and prioritizing the packets for latency-sensitive applications will not typically degrade other applications sharing the same infrastructure,"[941] such as email, software updates, or cached video.[942] Because of these practical limits on paid prioritization, we reject the argument that non-profits and independent and diverse content producers, who may be less likely to need QoS guarantees, will be harmed by lifting the ban.[943]

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providers, as a group, declines under paid prioritization. Bykowsky and Sharkey, *Welfare Effects of Paid for Prioritization Services: A Matching Model with Non-Uniform Quality of Service* at 28.

[940] *See supra* paras. 254-255.

[941] AT&T Comments at 44-45.

[942] *See* R Street Comments at 23-24; ACLP Comments at 20 ("The brief history of the Internet teaches that, regardless of how much capacity might be available, there will always be some level of congestion. Accordingly, there is significant evidence to support allowing firms to prioritize certain kinds of socially important content . . . over others"); CTIA Comments at 14-16; Ericsson Comments at 6 ("[B]ecause not all IoT connections place equal demands on the network, an inflexible version of net neutrality in this context could harm innovation. The notion that every data bit sent between connected cars should be treated with the same degree of priority as email traffic or that an augmented reality service is barred from obtaining a certain quality of service ignores the difference in requirements of the devices, applications, and users (not all of whom will be human) that will increasingly connect to the wireless Internet."). We thus reject arguments premised on the theory that ISPs could and would act to create artificial scarcity on their networks and thereby broadly require paid prioritization. *See, e.g.*, Engine Reply at 6-7 ("While ISPs are fond of noting that telemedicine and autonomous vehicle services are far more latency-sensitive than email traffic, these types of unique services are likely to represent a tiny fraction of the prioritization deals ISPs will seek to cut if the existing ban on paid prioritization is removed."); TDI et al. Comments at 11-12 ("[W]e have yet to observe concrete examples where (a) congestion exists sufficient to degrade traffic from accessibility-oriented applications (b) where accessibility oriented prioritization would provide a solution (c) that would function as well as simply provisioning more bandwidth for all users to relieve congestion."); OTI New America Reply at 24.

[943] *See* Vimeo Comments at 15-17 ("This two-tiered Internet would privilege certain business models and types of content over others. For example, edge providers that provide studio content . . . are better positioned to pay premium rates. . . [and] may be able to pass increased delivery costs onto consumers. Not all video content, however, allows for such fee shifting. . . non-studio content will generally be relegated to the "slow lane," thus diminishing its potential audience."); Independent Film and Television Alliance at 5; Future of Music Comments at 1 (allowing paid prioritization "would allow big [ISPs] to create new pay-to-play fast lanes, disadvantaging those who cannot pay for preferential treatment, and replicating the industry's past problems with payola."); American Association of Law Libraries et al. Comments at 16 ("A world in which libraries and other noncommercial enterprises are limited to the internet's 'slow lanes' while HD movies can obtain preferential treatment undermines a central priority for a democratic society—the necessity of all citizens to inform themselves and each other just as much as the major commercial and media interests can inform them."); American Association of Community Colleges et al. Comments at 13; Digital Content Next Comments at 3-4; AARP Comments at 23; Public Knowledge Comments at 115-17. We reject related arguments about a reduction in consumer choice, because paid prioritization is unlikely to affect choice for content that does not demand QoS guarantees and is likely to *increase* choice for content that would benefit from QoS guarantees. Consumers Union Comments at 16 ("Without restrictions upon paid prioritization, the internet could very well become commoditized in a way where it would look and feel different, with an expensive tier of prioritized access, and an 'everything else' tier of slower service. We do not believe this alternative, two-tiered—and likely, more expensive—internet benefits consumers."); Internet Association Comments at 22-23; DigitalOcean Comments at 6. Nor do we think we need to address assertions that paid prioritization would endanger U.S. national security as they are vague and lack any substantiation whatsoever. *See* Catherine Sandoval Reply at 25 ("Proposals to permit unregulated paid prioritization on the Internet reflect a September 11-type of failure of imagination about risks to America's national security and democracy. Foreign governments and their agents would relish the opportunity to buy priority Internet access to slow American messages or create a priority blockade. . . . The FCC fails to connect the dots between the dangers of allowing any person or entity, including foreign actors or agents, to buy paid prioritization in an unregulated U.S. Internet market
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259. *Reduction in price to consumers*. Eliminating the ban on paid prioritization arrangements could lead to lower prices for consumers for broadband Internet access service, as ISPs may be able to recoup some of their costs from edge providers.[944] As one study explains, the *Title II Order*'s ban on paid prioritization arrangements "can lead to higher prices that are charged to all end users—regardless of whether or not the end user subscribes to the content service that causes the congestion."[945]

260. *Closing the digital divide.* Paid prioritization can also be a tool in helping close the digital divide by reducing broadband Internet access service subscription prices for consumers. The zero-price rule imposed by the blanket ban on paid prioritization "imposes a regressive subsidy, transferring wealth from the economically disadvantaged to the comparatively rich by forcing the poor to support high-bandwidth subscription services skewed towards the wealthier."[946] One study concludes that "[a]t the margin, this would cause the lowest-end users to simply stop subscribing to internet services, which would further exacerbate the existing digital divide."[947] Accordingly, economic "models . . . suggest that network neutrality regulation is more likely to worsen than improve the digital divide."[948] We reject the

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if the FCC adopts its proposal. This colossal omission recalls the failure of imagination that contributed to the September 11 attacks against our nation.").

[944] R Street Comments at 24 ("Allowing market prices to prevail . . . would tend to lead to more efficient cost-sharing between consumers and content providers. Banning paid prioritization effects a price control for one side of the two-sided market, and will raise prices for the other side — namely, consumers."); CWA/NAACP Comments at 15 ("[S]hifting the cost of broadband transport from end users to edge providers [will] potentially lower[] end-user subscriber rates for broadband service, thereby reducing cost barriers to adoption of broadband services."); Cisco Comments at 11-12 ("[T]he *Title II Order*'s blanket ban on paid prioritization actually increases consumer broadband prices by artificially forcing network service providers to charge lower prices to edge providers, necessitating that costs be passed along to end users"). *See supra* para. 119 (discussing ISPs role as platform providers in two-sided market). Although we do not premise our analysis on the expectation of a total pass-through of these revenues to end-users, we find no support for assumptions that there would be no pass-through of revenues at all. *See, e.g.*, Nicholas Stephen Muise Comments at 4 (asserting that there is an "astronomically low" likelihood that ISPs will use increased revenues from paid prioritization to reduce end user charges); AARP Comments at 24 ("[I]t is more likely that any 'new revenue streams' would be utilized by broadband ISPs to enhance profits rather than to be returned to customers.").

[945] *See* Connolly et al., *Digital Divide n*at 542-43, 553-54. For examples from telecommunications, *see* Armstrong at 677-678 (finding that a type of two-sided market model, the "competitive bottlenecks" model, is a reasonable "stylized representation" of a mobile telecommunications network and stating that "the models predict that high profits made from call termination are passed on to subscribers in the form of subsidized handsets or similar inducements. . . the equilibrium call-termination charge is chosen to maximize the welfare of mobile subscribers and mobile networks combined, and the interests of those who call mobile networks are ignored. This feature—that the single-homing side is treated well and the multi-homing side's interests are ignored in equilibrium—is a characteristic of the models. . . ."); Christos Genakos and Tommaso Valletti, *Testing the 'Waterbed' Effect in Mobile Telephony*, J. Eur. Econ. Ass'n at 1114-1116, 1120 (2011) (finding that "reducing the level of [fixed-to-mobile termination rates] can potentially increase the level of prices for mobile subscribers, causing . . . the *waterbed* effect," and finding that "although regulation reduced [termination rates] by about 10%, this also led to a 5% increase in mobile retail prices, varying between 2% and 15% depending on the estimate").

[946] Cisco Comments at 11-12; *see also* Hylton, at 417; CWA/NAACP Comments at 15 ("[A]llowing broadband providers to charge edge providers for content delivery network services and QoS offerings sends efficient market signals, and avoids subsidizing heavy users of broadband access at the expense of lighter users"); TIA Reply at 8-9.

[947] *See* Connolly et al., *Digital Divide* at 543, 553-54.

[948] *Id.* at 16-17. Because ending the ban on paid prioritization is likely to help close the digital divide, we reject assertions to the contrary that ending the paid prioritization rule's effective subsidization of high-bandwidth services will harm consumers overall. *See* American Association of Law Libraries et al. Comments at 16; American Association of Community Colleges et al. Comments at 13; Consumers Union Comments at 15; Public Knowledge
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contrary argument that ISPs will engage in "virtual redlining" because, as discussed, paid prioritization is likely to lead to increased network investment and lower costs to end users, particularly benefiting those on the wrong side of the digital divide.[949] Allowing ISPs to charge both sides of the market could also enable additional arrangements to provide special low-cost broadband access, increasing broadband adoption among lower-income consumers.[950] For example, permitting "differential pricing" may enable the development of "[p]latforms that are both free and tailored to [people without Internet access]," similar to Facebook's Free Basics program in developing countries.[951] Nokia suggests that "a start-up company that wants to reach new customers with a bandwidth intensive application that will not work as intended below a certain service tier . . . should be allowed to offer to boost [a] consumer's bandwidth so he or she can experience their product as intended," and argues such arrangements "are most likely to benefit lower-income consumers, since those that already purchase high-tier services are less likely to benefit from third-party-pays QoS enhancements."[952]

261. *Addressing Harms*. We find that antitrust law, in combination with the transparency rule we adopt, is particularly well-suited to addressing any potential or actual anticompetitive harms that may arise from paid prioritization arrangements. The transparency rule will require ISPs to disclose any practices that favor some Internet traffic over other traffic, if the practices are paid or benefit any affiliated entity.[953] The transparency rule will provide greater information to all participants in the Internet ecosystem and empower them to act if they identify any potential anticompetitive conduct. Antitrust law is ideally situated to determine whether a specific arrangement, on balance, is anti-competitive or pro-competitive.[954] Moreover, to the extent that they exist, the potential harms to Internet openness stemming from paid prioritization arrangements are outweighed by the distortions that banning paid prioritization would impose.[955] Under the antitrust laws, a paid prioritization agreement challenged as anticompetitive would be evaluated under the case-specific rule of reason.[956] Paid prioritization would

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Comments at 117; Letter from National Congress of American Indians to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Dec. 5, 2017).

[949] *See* Connolly et al., *Digital Divide* at 553-54. For the virtual redlining argument, *see* Public Knowledge Comments at 120 (asserting that "rural communities and largely minority communities will be left behind in two ways—first, by ISPs that are reluctant to invest in broadband infrastructure deployment to those areas; and again, by edge providers that won't be willing to spend money to deliver their content to those same customers at prioritized speeds.").

[950] Free State Foundation Comments at 54 ("[L]ower-income consumers may prefer to forego faster or otherwise premium services in exchange for the opportunity to choose more affordable services that are enabled by paid priority agreements. Unfortunately, the *Title II Order* wrongly constrains broadband ISPs' freedom to charge edge providers based on their relative usage of ISP network facilities.").

[951] Bronwyn Howell Comments at 6.

[952] Nokia Comments at 13-14.

[953] *See supra* Part IV.A.2.

[954] We therefore reject the argument that the paid prioritization ban should be modified to more squarely focus on anticompetitive conduct. *See, e.g.*, CompTIA Comments at 6-7; Peha Light-Touch Regulation Comments at 8-11. While these alternative formulations may not be as problematic as the blanket ban, for the reasons discussed above, antitrust law is better placed than *ex ante* regulations to balance the potential benefits and harms of new arrangements.

[955] *Cf., e.g.*, Singer, *Paid Prioritization and Zero Rating* at 2 (antitrust poorly suited to address harms to innovation); Akamai Comments at 8-9 (same); Engine Reply at 10-11 (same).

[956] Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 135-36. *See* Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation* at 4 ("The rule of reason analysis would not result in a categorical ban on vertical agreements. Instead, by applying rule of reason, vertical agreements would be analyzed

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be prohibited only when it harms competition, for example, by inappropriately favoring an affiliate or partner in a way that ultimately harms economic competition in the relevant market.[957] The case-by-case, deliberative nature of antitrust is well-suited for this area, as it is difficult to determine on an *ex ante* basis which paid prioritization agreements are anticompetitive,[958] and in fact, no Internet paid prioritization agreements have yet been launched in the United States, rendering any concerns about such practices purely theoretical at this time.[959]

262. Lastly, antitrust laws would not prevent an ISP from exercising legally-acquired market power to earn market rents, so long as it is not used anticompetitively, but we do not consider any harms that might result from this to be so large as to justify the harms that a total prohibition on paid prioritization would entail. For harms from the exercise of legally-acquired market power to arise, the ISP must have market power over the edge provider. However, as shown above, ISPs usually face at least moderate competition, and all the more so taking a medium-term perspective. Consequently, the harms that could possibly occur from exercise of such power are not likely to be large. Further, the extent to which any harms actually occur will be muted by two factors. First, ISPs have strong incentives to keep edge provider output high (as this increases the value end users see in subscribing to the ISP, and signals to edge providers that the ISP recognizes their contribution to the platform).[960] Thus, harm will only occur to the extent the ISP is unable to devise pricing schemes that preserve edge providers' incentives to bring content while maximizing the ISP's profit (the exercise of market power is only harmful when it excludes what would otherwise be efficient purchases of access).[961] Second, as discussed above,

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on a case-by-case basis, and be rejected only if careful economic analysis concluded there are anticompetitive effects greater than any procompetitive effects or efficiencies."); ADTRAN Comments at 24.

[957] For example, a paid prioritization agreement offered to one edge provider but not others could be challenged as exclusionary. *See* FTC Broadband Report at 127 ("Use of exclusive dealing contracts, or other vertical arrangements, may support a monopolization claim."). Such an agreement would be anticompetitive if the ISP has substantial market power, the agreement has the effect of excluding the edge provider's competitors, and any resulting social costs are not outweighed by an improvement in economic efficiency and/or consumer welfare. *See* Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 136.

[958] Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 10 (asserting that because it is difficult to predict the impact of paid prioritization, regulation should proceed on case-by-case basis); Katz, *Wither U.S. Net Neutrality Regulation?* at 458-59; ITIF Comments at 17 ("We do not know in advance whether a particular traffic differentiation practice will be welfare enhancing or diminishing—prophylactic regulation risks over-enforcement, curtailing deals that may otherwise be good for consumers or competition."); Justin Hurwitz Comments at 2 ("[T]he consistent conclusion of contemporary economic literature is that paid prioritization can have positive or negative effects on consumer welfare and that the specific effects of any given implementation are difficult to predict *ex ante*. From a policy perspective, this argues strongly against any per se ban on the practice, and strongly in favor of *ex post* case-by-case analysis."); R Street Comments at 25 ("Economic literature has long recognized that the welfare effects of third-degree price discrimination are ambiguous and depend on the specific features and market structure of an individual case. Therefore, rather than outlawing hypothetical forms of price and service discrimination ahead of time, the Commission should presumptively allow broadband providers to experiment with innovative business models and service offerings."). We therefore reject arguments that *ex ante* rules are preferable. *See* Akamai Comments at 10; Cmm'r McSweeny Comments at 6; Vimeo Comments at 24-25; Electronic Gaming Foundation Comments at 3; ESA Comments at 8-9; AARP Comments at 12-13.

[959] *See* Cox Comments at 27-28; Comcast Comments at 61-63 ("A sweeping prohibition is much too blunt a tool, especially given that the asserted harms of such arrangements are entirely speculative. No ISPs have ever entered into paid prioritization arrangements, even before 2015 when there were no *per se* prohibitions of such arrangements in place."); AT&T Reply at 32-33 (noting that "there has been no 'paid prioritization' of mass market Internet traffic at any point in the history of broadband").

[960] *See supra* paras. 117-122.

[961] Greenstein et al. at 138.

increased prices from edge providers are to a potentially significant extent passed through to end users in the form of lower prices for broadband Internet access service, with the result that end user demand for edge provider content is increased. The extent of such pass-through offsets these harms.[962] Accordingly, we expect the harms from dictating pricing uniformity to edge providers exceed any harms that may emerge from a lack of such regulation.

c. Blocking and Throttling

263. We find the no-blocking and no-throttling rules are unnecessary to prevent the harms that they were intended to thwart. We find that the transparency rule we adopt today—coupled with our enforcement authority and with FTC enforcement of ISP commitments, antitrust law, consumer expectations, and ISP incentives—will be sufficient to prevent these harms, particularly given the consensus against blocking practices, as reflected in the scarcity of actual cases of such blocking.[963]

264. *Transparency rule*. As discussed above, the transparency rule we adopt, combined with antitrust and consumer protection laws, obviate the need for conduct rules by achieving comparable benefits at lower cost. In addition, several factors specific to blocking and throttling will work to prevent the potential harms that could be caused by blocking and throttling. First, most attempts by ISPs to block or throttle content will likely be met with a fierce consumer backlash.[964] As one commenter explains, such blocking or throttling is "unlikely to occur, because it must be sufficiently blatant to be of any benefit to the ISP, that [it] only increases the likelihood of getting caught."[965] Second, numerous ISPs, including the four largest fixed ISPs, have publicly committed not to block or throttle the content that consumers choose.[966] The transparency rule will ensure that ISPs reveal any deviation from these commitments to the public, and addresses commenter concerns that consumers will not understand the source of any blocking or throttling.[967] Violations of the transparency rule will be subject to our enforcement authority. Furthermore, the FTC possesses the authority to enforce these commitments, as it

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[962] One article presents a simple case where edge providers charge end users leading to the payment flows between edge providers and ISPs having no efficiency implications; much of the rest of the paper shows that changes as one allows for more complexity, but with complex efficiency implications. Greenstein et al at 133-34.

[963] *See infra* paras. 322-323. For the same reasons, we reject alternative formulations of the no-blocking and no-throttling rules. *See, e.g.*, CompTIA Comments at 6 (minimum level of access); R Street Comments at 21-22 (unreasonable discrimination); ESA Comments at 18-19 (ban only anticompetitive blocking and throttling); American Association of Community Colleges et al. Comments at 14-16 (modify rule to include end-user perspective).

[964] *See, e.g.*, Frontier Comments at 6 ("Frontier does not have any interest in favoring certain Internet content or in interfering with anyone's right to free speech. Frontier remains committed to ensuring its users can access the content of their choice. Indeed, the combination of competition in the broadband market and consumer expectations would significantly discipline any company that sought to micromanage a user's content."); TechFreedom Reply at 85-86 (the "few instances [of blocking] have been widely publicized, each resulting in the ISP soon relenting once consumers shone the news spotlight upon the controversial practice . . . . If [there are new blocking incidents that] are truly nefarious (i.e., the ISP is blocking a legal service/application that its customers are trying to access), then public outcry by the affected subscribers should likely be sufficient to convince the ISP to change its practices, rather than bear the brunt of public backlash, in hopes of pleasing its customers (and its investors)."). Given this record, we reject arguments that public reaction to such practices would not help to prevent the potential harms that could be caused by blocking and throttling. *See* Public Knowledge Comments at 109-111 (asserting ISPs' poor customer service ratings show that they do not respond to public outcry).

[965] ADTRAN Comments at 25.

[966] *See supr*a para. 142. In a similar vein, several commenters have pointed out the efficacy of the voluntary *Internet Policy Statement* in preserving the openness of the Internet. *See* Reason Foundation Comments at 11; Cause of Action Comments at 3; ITTA Comments at 3.

[967] *See* Vimeo Comments at 10-11; Public Knowledge Comments at 111.

did in *TracFone*.[968] Third, the antitrust laws prohibit anticompetitive conduct, and to the extent blocking or throttling by an ISP may constitute such conduct, the existence of these laws likely deters potentially anticompetitive conduct.[969] Finally, ISPs have long-term incentives to preserve Internet openness, which creates demand for the Internet access service that they provide.[970]

265. *Consensus against blocking and throttling*. We emphasize once again that we do not support blocking lawful content, consistent with long-standing Commission policy.[971] The potential consequences of blocking or throttling lawful content on the Internet ecosystem are well-documented in the record and in Commission precedent.[972] Stakeholders from across the Internet ecosystem oppose the blocking and throttling of lawful content, including ISPs,[973] public interest groups,[974] edge providers,[975]

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[968] *See FTC v. TracFone Wireless, Inc.*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015), https://www.ftc.gov/enforcement/cases-proceedings/132-3176/straight-talk-wireless-tracfone-wireless-inc; FTC Staff Comments at 10-13; *supra* paras. 141-142. We reject arguments that FTC enforcement of commitments and government and private enforcement of antitrust laws are insufficient to protect consumers from blocking. *See, e.g.*, NTCH/Flat Wireless Comments at 7; INCOMPAS Comments at 80-81; Public Knowledge Comments at 108; Digital Content Next Comments at 2; Etsy Comments at 5; AARP Comments at 24.

[969] *See supra* paras. 143-154.

[970] *See supra* paras. 117-122. It is therefore unsurprising that previous ISP attempts to create "walled gardens" for their subscribers have failed, demonstrating that in the long run, demand is created by innovative edge provider content. *See* Comcast Comments Appendix C at 17-18 ("Long gone are the days when AOL and Yahoo were valuable precisely because they 'controlled' user access to the Internet. The 'walled garden' concept in which the BIAS provider's homepage was its subscriber's window to the Internet and the BIAS provider gave its subscriber standard services like email and news dramatically evolved. This evolution was driven by consumers' preferences for a more open and less curated experience that allowed them to 'surf' for content they desired instead of content they were fed. . . . BIAS providers have learned that providing excellent Internet access service is their comparative advantage—including ubiquitous access to third-party content and services.") (internal punctuation omitted).

[971] *See Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4 ("[C]onsumers are entitled to access the lawful Internet content of their choice."); *Open Internet Order*, 25 FCC Rcd at 17915, para. 19; *Title II Order*, 30 FCC Rcd at 5607, para. 15; *Internet Freedom NPRM*, 32 FCC Rcd at 4461, para. 80.

[972] *See Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4; *Open Internet Order*, 25 FCC Rcd at 17941-42, para. 62. Commenters assert that blocking and throttling can undermine consumer choice (*see, e.g.*, Sen. Schatz Reply at 1; Free Press Comments at 67; American Association of Law Libraries et al. Comments at 14-15; Etsy Comments at 3-4; Greenlining Institute Comments at 17-18; Consumers Union Comments at 15); reduce investment in, or otherwise harm edge providers (*see, e.g.*, Vimeo Comments at 10; Engine Comments at 25-27; DigitalOcean Comments at 4; National Association of Realtors Comments at 2; ITIC Comments at 4; FarmLogs Comments at 2); allow vertically-integrated ISPs to favor their own content (*see, e.g.*, DigitalOcean Comments at 4; Etsy Comments at 3-4; American Association of Law Libraries et al. Comments at 15; CompTIA Comments at 2; Public Knowledge Comments at 111; Internet Association Comments at 27-28; AARP Comments at 16, 19-20); reduce innovation (*see, e.g.*, National Association of Realtors Comments at 2-3); harm OVDs (Vimeo Comments at 11-13; Internet Association Comments at 27-28); disfavor content on the basis of political views (*see, e.g.*, Susan Thomas Comments at 1-2; Peha Light Touch Comments at 7; Public Knowledge Comments at 108; Greenlining Institute Comments at 15-19); subject ISPs to political pressure (*see* Public Knowledge Comments at 108; Rep. Pallone et al. Reply at 5); undercut the free exchange of ideas (*see, e.g.*, Sen. Schatz Reply at 1; American Association of Law Libraries et al. Comments at 14-15; Greenlining Institute Comments at 17-19), silence diverse voices (*see, e.g.*, American Association of Law Libraries et al. Comments at 14-15; Greenlining Institute Comments at 17-18; Common Cause Letter at 1; Voices Coalition Comments at 41-42); and harm people with disabilities (*see* TDI et al. Comments at 9-10).

[973] *See, e.g.*, ACA Comments at 67-68; AT&T Comments at 2, 10, 101; Comcast Comments at 52-53; Cox Comments at 1; Frontier Comments at 1, 5-6; Verizon Comments at 19-20; NCTA Comments at 54; ITTA Comments at 3; Charter Comments at 2.

other content producers,[976] network equipment manufacturers,[977] government entities,[978] and other businesses and individuals who use the Internet.[979] This consensus is among the reasons that there is scant evidence that end users, under different legal frameworks, have been prevented by blocking or throttling from accessing the content of their choosing.[980] It also is among the reasons why providers have voluntarily abided by no-blocking practices even during periods where they were not legally required to do so.[981] As to free expression in particular, we note that none of the actual incidents discussed in the *Title II Order* squarely implicated free speech.[982] If anything, recent evidence suggests that hosting services, social media platforms, edge providers, and other providers of virtual Internet infrastructure are more likely to block content on viewpoint grounds.[983] Furthermore, in the event that any stakeholder were

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[974] *See, e.g.*, Reason Foundation Comments at 11; Free Press Comments at 67-68; Public Knowledge Comments at 106-112; TDI et al. Comments at 9-10; Consumers Union Comments at 3, 13-15; AARP Comments at 13-16.

[975] *See, e.g.*, Apple Reply at 2; Twitter Reply at 2; Vimeo Comments at 10-11; Etsy Comments at 4; Mozilla Comments at 3; Microsoft Comments at 10-18; ESA Comments at 6-9; Meetup Comments at 2, 7; Internet Association Comments at 27-28.

[976] *See, e.g.*, Directors Guild of America et al. Comments at 4; Independent Film & TV Alliance Comments at 3-4; Future of Music Coalition Comments at 2; Electronic Gaming Foundation Comments at 4; Writers Guild of America West Comments at 18.

[977] *See, e.g.*, ADTRAN Comments at 25-26; Cisco Systems Comments at 14; Ericsson Comments at 1; Nokia Comments at 2-3, 16.

[978] *See, e.g.*, Letter from City of Santa Clara, CA & Santa Clara County Central Fire Protection District to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Dec. 6, 2017); Letter from Robb Davis, Mayor, City of Davis, CA to Ajit Pai, Chairman, FCC, WC Docket No. 17-108 (filed Dec. 6, 2017); Letter from Governor Jay Inslee, State of Washington, to Chairman Pai, FCC, WC Docket No. 17-108 (filed Dec. 6, 2017).

[979] *See, e.g.*, ADT Comments at 5-6; Internet Engineers Comments at 31; Peha Light-Touch Regulation Comments at 2, 4; CWA/NAACP Comments at 3, 12-13; American Association of Community Colleges et al. Comments at 14-16; Harold Hallikainen Comments at 11-12; David Ha Comments at 1, 6.

[980] As Judges Williams and Silberman have pointed out, proponents of utility-style regulation have pointed to "astonishing[ly]" few incidents that involved the blocking of content or applications. *USTelecom*, 825 F.3d at 762 (Williams, J., dissenting); *Verizon*, 740 F.3d at 664-65 (Silberman, J., dissenting). *See supra* paras. 110-115; TechFreedom Reply at 85-86 ("[E]xamples of an ISP actually blocking a competitive application/service from accessing its last-mile network are remarkably few."); Massillon Cable Comments at 7; AT&T Comments at 11; *infra* Part VI.B. We reject the argument that the blocking of alarm signals alleged by ADT justifies a no-blocking rule, because it is unclear if the blocking was intentional and the blocking was resolved informally. *See* Letter from Michael H. Pryor, Counsel for ADT, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 3 (filed Oct. 11, 2017).

[981] *See Title II Order*, 30 FCC Rcd at 5648, para. 112 (noting that "many broadband providers still voluntarily continue to abide by the 2010 no-blocking rule, even though they have not been legally required to do so by a rule of general applicability since the Verizon decision"); ITTA Comments at 3; Ericsson Comments at 10; Welch Comments at 5; *supra* Part III.C.2.

[982] *See supra* paras. 110-115.

[983] *See, e.g.*, Cloudflare, Why We Terminated Daily Stormer (Aug. 16, 2017), https://blog.cloudflare.com/why-we-terminated-daily-stormer/ (explaining why Cloudflare, which provides reverse proxy, CDN, and DNS services, ceased providing these services to the neo-Nazi Daily Stormer website: "[W]e've felt angry at these hateful people for a long time but . . . remained content neutral as a network. We could not remain neutral after these claims of secret support by Cloudflare."); Timothy B. Lee, *Tech companies declare war on hate speech—and conservatives are worried*, ArsTechnica (Aug. 31, 2017), https://arstechnica.com/tech-policy/2017/08/tech-companies-are-cracking-down-on-hate-speech/ ("[U]sers across the political spectrum have long criticized technology companies for their seemingly arbitrary and non-transparent processes for moderating content on their platforms."); Jeremy Malcolm, Cindy Cohn, and Danny O'Brien, *Fighting Neo-Nazis and the Future of Free Expression*, Electronic Frontier Foundation (Aug. 17, 2017), https://www.eff.org/deeplinks/2017/08/fighting-neo-nazis-future-free-

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inclined to deviate from this consensus against blocking and throttling, we fully expect that consumer expectations, market incentives, and the deterrent threat of enforcement actions will constrain such practices *ex ante*. To the extent that these incentives prove insufficient and any stakeholder engages in such conduct, such practices can be policed *ex post* by antitrust and consumer protection agencies.

266. Additionally, as urged by the prior Commission when defending the *Title II Order*, and as confirmed in the concurrence in the denial of rehearing *en banc* by the two judges in the majority in *USTelecom*, the *Title II Order* allows ISPs to offer curated services, which would allow ISPs to escape the reach of the *Title II Order* and to filter content on viewpoint grounds.[984] In practice, the *Title II Order* "deregulates curated Internet access relative to conventional Internet access [and] may induce ISPs to filter content more often," rendering the no-blocking and no-throttling rules ineffectual as long as an ISP disclosed it was offering curated services.[985] The curated services exemption arising from the *Title II Order* confirms our judgment that transparency requirements, rather than conduct rules, are the most effective means of preserving Internet openness.

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expression ("Because Internet intermediaries, especially those with few competitors, control so much online speech, the consequences of their decisions have far-reaching impacts on speech around the world."); Aaron Renn, *How Apple and Google are censoring the mobile Web*, New York Post (Aug. 21, 2017), https://nypost.com/2017/08/21/how-apple-and-google-are-censoring-the-mobile-web ("What few people yet understand is that Google and Apple have used their duopoly status to revoke the First Amendment on mobile phones."); Kevin Robillard, *Twitter pulls Blackburn Senate ad deemed 'inflammatory'*, Politico (Oct. 9, 2017), https://www.politico.com/story/2017/10/09/marsha-blackburn-twitter-ad-243607 ("Twitter is barring a top Republican Senate candidate from advertising her campaign launch video on the service because a line about her efforts to investigate Planned Parenthood was deemed "inflammatory."); Hamza Shaban, *Gab is suing Google for allegedly violating antitrust laws*, Washington Post (Sept. 15, 2017), https://www.washingtonpost.com/news/the-switch/wp/2017/09/15/gab-is-suing-google-for-allegedly-violating-antitrust-laws/?utm_term=.fa40f5467e2d ("Google banned the social media platform from the Google Play Store last month, citing violations of Google's hate speech policies."); Perry Chiaramonte, *Apple censored pro-life group by dropping app, activists say*, Fox News (Oct. 17, 2017), http://www.foxnews.com/tech/2017/10/17/apple-censored-pro-life-group-by-dropping-app-activists-say.html ("Tech behemoth Apple has suddenly dropped a pro-life prayer application from its App Store after left-wing bloggers complained about it being listed on the store's directory."); Ari Breland, *Online right fumes after YouTube ad crackdown*, The Hill (Sept. 30, 2017), http://thehill.com/policy/technology/353213-right-fumes-after-youtube-ad-crackdown ("YouTube is in hot water with conservative users and creators, with the Google-owned video giant accused of discriminating against the right as YouTube takes ads off content that it says violates the terms of service. . . . 'Diamond and Silk,' two prominent YouTube creators who were hit hard by the site's demonetization policies, believe they were targeted for their support for President Trump."); Nathan Ingraham, *Google is blocking YouTube on Amazon's Echo Show and Fire TV*, Engadget (Dec. 5, 2017), https://www.engadget.com/2017/12/05/google-blocking-youtube-on-amazon-echo-show-fire-tv/ ("Google is putting its foot down and officially pulling support for YouTube on both the Echo Show and Amazon's Fire TV devices."); Marvin R. Shanken, Apple's War On Cigars, Cigar Aficionado (Nov. 10, 2017), https://www.cigaraficionado.com/article/apple-s-war-on-cigars (". . . Apple has declared war on cigar smokers. The company, one of the biggest in the world, has removed Cigar Aficionado's Where to Smoke app from its store, and says that apps about cigars are no longer allowed in its shop."); Joe Mullin, *PragerU sues YouTube, says it censors conservative videos*, ArsTechnica (Oct. 25, 2017), https://arstechnica.com/tech-policy/2017/10/prageru-sues-youtube-says-it-censors-conservative-videos/ (PragerU says that at least 37 of its videos continue to be censored by 'restricted mode filtering,' which limits views based on certain characteristics, including the age of the viewer. Those videos include educational content ranging from the legal creation of Israel and the history of the Korean War, to the idea of diversity of thought on college campuses.") (quotation omitted).

[984] *USTelecom*, 855 F.3d 381, 389 (D.C. Cir. 2017) (Srinivasan, J. and Tatel, J. concurring in denial of rehearing *en banc*).

[985] Brent Skorup/Mercatus Center Reply at 14. *See* NCTA Comments at 40 ("Ironically, then, the burdens of Title II could lead to a less open Internet and thereby frustrate the Commission's policy goals.").

3. The Record Does Not Identify Authority for Comprehensive Conduct Rules

267. The record in this proceeding does not persuade us that there are any sources of statutory authority that individually, or in the aggregate, could support conduct rules uniformly encompassing all ISPs. We find that provisions in section 706 of the 1996 Act directing the Commission to encourage deployment of advanced telecommunications capability are better interpreted as hortatory rather than as independent grants of regulatory authority. We also are not persuaded that section 230 of the Communications Act is a grant of regulatory authority that could provide the basis for conduct rules here. Nor does the record here reveal other sources of authority that collectively would provide a sure foundation for conduct rules that would treat all similarly-situated ISPs the same.

a. Section 706 of the 1996 Act

268. We conclude that the directives to the Commission in section 706(a) and (b) of the 1996 Act to promote deployment of advanced telecommunications capability are better interpreted as hortatory, and not as grants of regulatory authority. We thus depart from the interpretation of those provisions adopted by the Commission beginning in the *Open Internet Order*, and return to a reading of that language in section 706 of the 1996 Act consistent with the Commission's original interpretation.

269. We adopt this reading in light of the text, structure, and history of the 1996 Act and Communications Act. Section 706(a) directs that:

> The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.[986]

In turn, section 706(b) provides in pertinent part that "[i]f the Commission's determination" under an annual inquiry into deployment of advanced telecommunications capability "is negative, it shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market."[987]

270. The relevant text of section 706(a) and (b) of the 1996 Act is reasonably read as exhorting the Commission to exercise market-based or deregulatory authority granted under other statutory provisions, particularly the Communications Act. The Commission otherwise has authority under the Communications Act to employ price cap regulation for services subject to rate regulation;[988] to employ regulatory forbearance;[989] to promote competition in the local telecommunications market;[990] and

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[986] 47 U.S.C. § 1302(a).

[987] 47 U.S.C. § 1302(b).

[988] *See, e.g.*, *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, 5 FCC Rcd 6786 (1990).

[989] 47 U.S.C. § 160; *see also, e.g.*, 47 U.S.C. § 332(c)(1) (providing authority to prescribe regulations designating provisions of Title II of the Communications Act (other than sections 201, 202, 208) as inapplicable to CMRS services or providers).

[990] *See, e.g.*, 47 U.S.C. §§ 251-261.

to remove barriers to infrastructure investment.[991] The Commission thus need not interpret section 706 as an independent grant of regulatory authority to give those provisions meaning.[992] Further, consistent with normal canons of statutory interpretation, the language "other regulating methods" in section 706(a) is best understood as consistent with the language that precedes it, and thus likewise reasonably is read as focused on the exercise of other statutory authority like that under the Communications Act, rather than itself constituting an independent grant of regulatory authority.[993] This view also comports with the Commission's original interpretation of the language of section 706(a),[994] avoids rendering the provisions of section 706(a) or (b) surplusage,[995] and does not otherwise conflict with the statutory text. Although the term "shall" "generally indicates a command that admits of no discretion,"[996] because the Commission has other authority under the Communications Act that it can exercise consistent with the direction in section 706(a) and (b) of the 1996 Act, our interpretation is not at odds with the use of "shall encourage" in section 706(a) or "shall take immediate action" in section 706(b).[997]

271. We not only find that the relevant language in sections 706(a) and (b) of the 1996 Act permissibly can be read as hortatory, but are persuaded that is the better interpretation.[998] For one,

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[991] *See, e.g.*, 47 U.S.C. §§ 224, 253, 254, 257.

[992] *See, e.g.*, CenturyLink Comments at 39-40; Free State Foundation Comments at 37 ("Prior Commission precedents recognized that Section 706 is not an independent grant of agency authority but rather a hortatory deregulatory policy statement meant to guide agency action under other statutory sections."); TechFreedom/ICLE Comments, GN Docket No. 14-28 et al., at 74-75 (filed July 17, 2014) (TechFreedom/ICLE 2014 Comments) *cited in* Washington Legal Foundation Comments at 9 n.20; Alamo Reply, Attach. at 11-12 ("Section 706(a) does not contain 'conferrals of authority, but . . . references to the exercise of authority conferred elsewhere.'"); *see also Verizon*, 740 F.3d at 637 ("[T]his language could certainly be read as simply setting forth a statement of congressional policy, directing the Commission to employ 'regulating methods' already at the Commission's disposal to achieve the stated goal of promoting 'advanced telecommunications' technology.").

[993] *See, e.g.*, Alamo Reply, Attach. at 11-12 ("Under the *ejusdem generis* canon, which *Verizon* did not apply, the catchall—'other regulating methods that remove barriers to infrastructure investment'—must also refer to preexisting authority." (citation omitted)); Christopher S. Yoo Reply at 5-6 ("The phrase 'other regulating methods that remove barriers to infrastructure investment,' is a classic catchall clause. Basic canons of statutory construction require that its scope be limited to the terms that precede it.").

[994] *See, e.g.*, *Advanced Services Order*, 13 FCC Rcd at 24044-48, paras. 69-77.

[995] In particular, section 706(a) provides a general, ongoing exhortation for the Commission to encourage deployment of advanced telecommunications capability through exercise of other authority, while section 706(b) directs the Commission to do so by taking "immediate action" in the event of a negative finding under the section 706(b) inquiry. 47 U.S.C. § 1302(a), (b). The direction in section 706(b) of the 1996 Act that the Commission exercise other authority by taking "immediate action" in the event of a negative finding under the section 706(b) inquiry could, for example, form part of the basis for petition(s) for Commission rulemaking based on such other authority in the wake of a negative finding in the section 706(b) inquiry. Although the Tenth Circuit concluded that the possibility of such an interpretation of section 706(b) would not unambiguously compel the conclusion that the provision is hortatory, the court's decision does not limit our ability to rely on that as a factor that persuades us that section 706(b) is better read as hortatory. *See In re FCC 11-161*, 753 F.3d 1015, 1053-54 (10th Cir. 2014).

[996] *See, e.g.*, *Ass'n of Civilian Tech. v. FLRA*, 22 F.3d 1150, 1153 (D.C. Cir. 1994).

[997] 47 U.S.C. § 1302(a), (b).

[998] Arguments in the record supporting section 706 of the 1996 Act as granting regulatory authority generally contend that this is a permissible interpretation but do not persuade us it is the better reading. *See, e.g.*, AARP Comments at 39-40; ACLP Comments at 26-28; American Association of Community Colleges et al. Comments at 22; ACA Comments at 72; AT&T Comments at 101-06; Black Women's Roundtable Comments at 4; CPUC Comments at 33; Chamber of Commerce Comments at 7-8; Cogent Comments at 22-24; Comcast Comments at 51; CWA/NAACP Comments at 15-17; CompTIA Comments at 6; Cox Comments at 25-27; ESA Comments at 14-16; ITIF Comments at 19; NCTA Comments at 57; Public Knowledge Comments at 62; Verizon Comments at 18; WISPA Comments at 23-24; WTA Comments at 6; Association of Research Libraries Reply at 13; Software and

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although the relevant provisions in section 706(a) and (b) identify certain regulatory tools (like price cap regulation and regulatory forbearance) and marketplace outcomes (like increased competition and reduced barriers to infrastructure investment), they nowhere identify the providers or entities whose conduct could be regulated under section 706 if interpreted as a grant of such authority.[999] This lack of detail stands in stark contrast to Congress's approach in many other provisions enacted or modified as part of the 1996 Act that clearly are grants of authority to employ similar regulatory tools or pursue similar marketplace outcomes and that directly identify the relevant providers or entities subject to the exercise of that regulatory authority.[1000] The absence of any similar language in section 706(a) and (b) of the 1996 Act supports our view that those provisions are better read as directing the Commission regarding its exercise of regulatory authority granted elsewhere.

272. Indeed, under the *Open Internet Order*'s theory of section 706(a) and (b) as independent grants of authority, the Commission could rely on those provisions to impose duties or adopt regulations equivalent to those directly addressed by the provisions of the Communications Act focused on promoting competition and/or deployment that go beyond the entities, contexts, and circumstances that bounded the Communications Act provisions. Section 706(a) and (b) direct the Commission to promote competition in the local telecommunications market and otherwise encourage the deployment of advanced telecommunications capability. Promoting local competition and/or encouraging the deployment of telecommunications networks likewise are key objectives of a number of provisions added to the Communications Act by the 1996 Act, each of which were limited in scope to address the actions of particular, defined entities and were triggered in particular, defined circumstances.[1001] We are skeptical

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Information Industry Alliance Reply at 13; *see also, e.g.*, *Comcast*, 600 F.3d at 658 (section 706 "at least arguably . . . delegates" authority to the Commission).

[999] *See, e.g.*, Brief of Harold Furchtgott-Roth and Washington Legal Foundation, *USTelecom v. FCC*, at 13 (filed Aug. 6, 2015) (Furchtgott-Roth/Washington Legal Foundation Brief) *cited in* Washington Legal Foundation Comments at 9, n.20.

[1000] *See, e.g.*, 47 U.S.C. § 160 (authorizing the Commission to forbear from applying the Act or Commission rules to a telecommunications carrier or class of such carriers or a telecommunications service or class of such services); *id.* § 214(e) (imposing duties on carriers designated as eligible telecommunications carriers for universal service support purposes); *id*. § 224 (requiring certain specified utilities to provide access to poles, ducts, conduit and rights-of-way); *id*. § 251 (imposing certain market-opening requirements on telecommunications carriers, local exchange carriers (LECs), and incumbent LECs, respectively); *id*. § 253 (authorizing preemption of state or local requirements that prohibit or have the effect of prohibiting the provision of telecommunications services); *id*., § 254(k) (prohibiting telecommunications carriers from subsidizing competitive services with services not subject to competition); *id*., § 259 (providing for regulation of incumbent local exchange carriers to provide access to public switched network infrastructure under certain circumstances); *id*. § 271 (imposing market-opening requirements on Bell Operating Companies (BOCs) as a condition of providing in-region long distance services); *id*. § 652 (restricting local exchange carriers and their affiliates from acquiring certain ownership interests in cable operators in the carriers' telephone service area and restricting cable operators and their affiliates from acquiring certain ownership interests in local exchange carriers in the cable operators' franchise area). Our consideration of this as one factor persuading us that section 706 of the 1996 Act is better read as hortatory is not undercut by our reliance on section 257 as authority for disclosure requirements that provide us information needed to identify potential barriers to entry and investment while also helping mitigate any such barriers. Although section 257 does not expressly identify entities from which we can obtain information, other aspects of section 257 persuade us that our interpretation of that provision as a grant of authority to obtain the information we require from ISPs is necessary for us to carry out our duties under that provision for the reasons discussed above. *See supra* Part A.3. Here, by contrast, this consideration combines with many others to collectively persuade us that section 706 of the 1996 Act is better read as hortatory.

[1001] For example, the 1996 Act amended section 224 of the Communications Act to expand specified communications providers' access to utilities' poles, ducts, conduit, and rights-of-way to "ensure that the deployment of communications networks and the development of competition are not impeded by private ownership and control of the scarce infrastructure and rights-of-way that many communications providers must use in order to

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that at the same time Congress enacted carefully-tailored regulatory regimes codified in various provisions of the Communications Act, it simultaneously granted the Commission redundant authority to impose those same duties or adopt similar regulatory treatment largely unbound by that tailoring in a "Miscellaneous" provision of the same legislation.[1002]

273. Our interpretation of section 706 of the 1996 Act as hortatory also is supported by the implications of the *Open Internet Order*'s interpretation for the regulatory treatment of the Internet and information services more generally. The interpretation of section 706(a) and (b) that the Commission adopted beginning in the *Open Internet Order* reads those provisions to grant authority for the Commission to regulate information services so long as doing so could be said to encourage deployment of advanced telecommunications capability at least indirectly.[1003] A reading of section 706 as a grant of regulatory authority that could be used to heavily regulate information services—as under the Commission's prior interpretation—is undercut by what the Commission has found to be Congress' intent in other provisions of the Communications Act enacted in the 1996 Act—namely, to distinguish between telecommunications services and information services, with the latter left largely unregulated by default.[1004]

274. In addition, the 1996 Act added section 230 of the Communications Act, which provides, among other things, that "[i]t is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[1005] A necessary implication of the prior interpretation of section 706(a) and (b) as grants of regulatory authority is that the Commission could regulate not only ISPs but also edge

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reach customers." *Implementation of Section 703(e) of the Telecommunications Act of 1996*, CS Docket No. 97-151, Report and Order, 13 FCC Rcd 6777, 6780, para. 2 (1998). The market-opening framework in sections 251(a)-(c), 252, and 271 of the Communications Act, applicable respectively to telecommunications carriers, LECs, incumbent LECs, and BOCs, also were added by the 1996 Act. 47 U.S.C. §§ 251(a)-(c), 252, 271. The 1996 Act also added provisions to the Communications Act to eliminate regulatory barriers to competition and network deployment in certain defined circumstances. *See, e.g.*, 47 U.S.C. § 160 (regulatory forbearance), *id*. § 253 (preemption of state or local requirements that restrict the provision of telecommunications service), *id*. § 332(c)(7) (limitation on state or local regulation of wireless facilities siting).

[1002] *See, e.g.*, Free State Foundation Comments at 35-36; TechFreedom/ICLE 2014 Comments at 63, 70-74, 89; Alamo Reply, Attach. at 12; Christopher S. Yoo Reply at 7.

[1003] *See generally Open Internet Order*, 25 FCC Rcd at 17968-71, paras. 117-22; *see also, e.g.*, *Verizon*, 740 F.3d at 643 (affirming the *Open Internet Order*'s view that section 706 authority can be exercised even based on a 'triple-cushion shot' theory linking the regulation to deployment of advanced telecommunications capability).

[1004] *See, e.g.*, *Stevens Report*, 13 FCC Rcd at 11520-26, paras. 39-48; *see also, e.g.*, Furchtgott-Roth/Washington Legal Foundation Brief at 15 ("It is nonsensical to suggest that the same Congress that went out of its way to protect information services from common-carrier requirements simultaneously and *sub silentio* authorized the Commission to compel information service providers to act as common carriers.").

[1005] 47 U.S.C. § 230(b)(2). The *Open Internet Order* asserted that "[m]aximizing end-user control is a policy goal Congress recognized in Section 230(b) of the Communications Act." *Open Internet Order*, 25 FCC Rcd at 17944-45, para. 71. In full, however, section 230(b)(3) states that "[i]t is the policy of the United States-- . . . to encourage *the development of technologies* which maximize user control over what information is received by individuals, families, and schools who use the Internet and other interactive computer services." *Id*. § 230(b)(3) (emphasis added). Although the rules in the *Open Internet Order* would have considered the extent to which a network management practice is subject to end-user control when evaluating the reasonableness of discrimination, that *Order* does not explain why that (or conduct rules more generally) would better encourage the development of technologies for end-user control than would be the case without such rules. *See Open Internet Order*, 25 FCC Rcd at 17944-45, para. 71. The *Title II Order* is similar in this regard. *See Title II Order*, 30 FCC Rcd at 5661-62, para. 139. Assertions of the sort in those *Orders* thus provide no basis for concluding that regulating ISPs is likely to better "encourage the development of technologies which maximize user control" than the absence of such regulations.

providers or other participants in the Internet marketplace—even when they constitute information services, and notwithstanding section 230 of the Communications Act—so long as the Commission could find at least an indirect nexus to promoting the deployment of advanced telecommunications capability. For example, some commenters argue that "it is content aggregators (think Netflix, Etsy, Google, Facebook) that probably exert the greatest, or certainly the most direct, influence over access."[1006] Section 230 likewise is in tension with the view that section 706(a) and (b) grant the Commission regulatory authority as the Commission previously claimed.[1007] These inconsistencies are avoided, however, if the deployment directives of section 706(a) and (b) are viewed as hortatory.

275. Prior Commission guidance regarding how it would interpret and apply the authority it claimed under section 706(a) and (b) of the 1996 Act does not allay our concerns with the interpretation of those provisions as grants of regulatory authority. For example, the *Open Internet Order* stated that section 706 authority only would be used to regulate "communication by wire or radio," consistent with sections 1 and 2 of the Communications Act.[1008] Other provisions enacted in the 1996 Act that clearly grant authority to promote competition or network deployment themselves generally address either facilities being used to engage in communications or the communications themselves, however.[1009] Thus,

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[1006] ICLE Reply at 52; *see also, e.g.*, ACA Comments at 72-73, n.231 ("ACA also continues to believe that Section 706 affords the Commission the authority to regulate the practices of Internet edge providers that threaten the free and open Internet by interfering with the virtuous cycle of innovation, consumer demand and broadband deployment and that it would be inequitable to continue to regulate broadband ISPs but leave Internet edge providers free to engage in harmful conduct.").

[1007] *See, e.g.*, CenturyLink Comments at 41; CEI Comments at 4; Washington Legal Foundation Comments at 7-8; Alamo Reply at 10-11; Coalition of 83 Organizations et al. Reply at 1.

[1008] *Open Internet Order*, 25 FCC Rcd at 121. Court precedent has interpreted facilities or equipment within the scope of Title I of the Act to grant "at most, . . . general authority . . . to regulate apparatus used for the receipt of radio or wire communication while those apparatus are engaged in communication." *American Library Ass'n v. FCC*, 406 F.3d 689, 704 (D.C. Cir. 2005) *cited in Verizon*, 740 F.3d at 640.

[1009] For example, a number of the provisions enacted in the 1996 Act directly address the manner in which entities are required or allowed to provide or charge for communications services. *See, e.g.*, 47 U.S.C. § 214(e)(1) (duty of eligible telecommunications carriers to offer and advertise services supported by federal universal service support mechanisms); *id*. § 251(b)(1) (resale of local exchange carriers' telecommunications services); *id*. § 251(b)(2) (local number portability); *id*. § 251(b)(3) (dialing parity); *id*. § 251(b)(5) reciprocal compensation for the transport and termination of telecommunications); *id*. § 251(c)(4) resale of incumbent local exchange carriers' retail telecommunications services); *id*. § 254(k) (prohibiting telecommunications carriers from subsidizing competitive services with services not subject to competition); *id*. § 271(c)(1)(B) (requiring the offering of various transmission services to competitors as a condition of BOCs provide in-region long distance services); *id*. § 652 (restricting the ability of local exchange carriers and their affiliates from providing video service through the acquisition cable operators in the carriers' telephone service area, and vice versa). Various other provisions regulate access to facilities being used for the transmission of communications. *See, e.g.*, 47 U.S.C. § 224 (requiring certain specified utilities to provide access to poles, ducts, conduit and rights-of-way); *id*. § 251(a) (requiring telecommunications carriers to interconnect their networks with other telecommunications carriers and restricting the installation of network features and functions that do not comply with certain disability access or interconnection requirements); *id*. § 251(b)(4) (requiring local exchange carriers to provide access to rights-of-way to competing telecommunications carriers); *id*. § 251(c)(2) (requiring incumbent local exchange carriers to interconnect with requesting telecommunications carriers); *id*. § 251(c)(3) (requiring incumbent local exchange carriers to provide unbundled access to their networks to requesting telecommunications carriers); *id*. § 251(c)(5) (requiring incumbent local exchange carriers to provide notice of changes in their networks necessary for transmission and routing using those networks); *id*. § 251(c)(6) (requiring incumbent local exchange carriers to allow collocation of equipment necessary to allow interconnection or access to unbundled network elements); *id*. § 259 (providing for regulation of incumbent local exchange carriers to provide access to public switched network infrastructure under certain circumstances); *id*. § 271(c)(1)(B) (requiring the offering of access to facilities to competitors as a condition of BOCs providing in-region long distance services).

applying section 706 of the 1996 Act only to communication by wire or radio would not prevent the Commission from replicating such requirements. In addition, broadband Internet access service itself involves communications by wire or radio—as do many other Internet information services. Consequently, this Commission guidance also does not resolve tensions between the Commission's prior theory of section 706 authority and the 1996 Act's general deregulatory approach to information services or section 230's enunciation of the federal policy "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[1010]

276. Nor are the specific, problematic implications we identify with the Commission's prior interpretation of section 706 as a grant of authority avoided by the Commission's explanation that its use of such authority must encourage the deployment of advanced telecommunications capability by promoting competition or removing barriers to infrastructure investment.[1011] Given the already-recognized nexus between the relevant Communications Act provisions and the promotion of network deployment and/or local competition, the record provides no reason to believe the Commission would have difficulty demonstrating at least an indirect effect on the deployment of advanced telecommunications capability should it wish, as a policy matter, to impose equivalent requirements under an assertion of authority under section 706(a) and (b) without adhering to limitations or constraints present in the Communications Act provisions.[1012] Likewise, the *Open Internet Order* shows that the Commission can readily find that criterion met in order to regulate an information service like broadband Internet access service notwithstanding the 1996 Act's general deregulatory approach for information service and the deregulatory Internet policy specified in section 230 of the Act.[1013]

277. Guidance in the *Open Internet Order* also asserted that the exercise of section 706 authority could not be "inconsistent with other provisions of law,"[1014] but effectively viewed that as a very low bar to satisfy, finding it reasonable to exercise section 706 authority to impose duties on information service providers that did not meaningfully "differ[] from the nondiscrimination standard applied to common carriers generally."[1015] So long as regulations fall outside the constraints of sections 3(51) and 332(c)(2) of the Act—upon which the reversal in *Verizon* was based—neither precedent nor the record here demonstrate that the reference to ensuring that any section 706 authority be exercised "[]consistent

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[1010] 47 U.S.C. §230(b)(2).

[1011] *Open Internet Order*, 25 FCC Rcd at 17970, para. 121.

[1012] *See Verizon*, 740 F.3d at 640. Perhaps if the Commission required a tighter connection between a given regulatory action and promoting deployment of advanced telecommunications capability, it might reduce the magnitude of the inconsistency somewhat, but the record does not reveal that such an approach would eliminate it entirely or even diminish it to such an extent as to materially strengthen the argument for interpreting the relevant provisions of section 706(a) and (b) as grants of regulatory authority. *See, e.g.*, AT&T Comments at 104-06 (discussing how the Commission should limit its exercise of section 706 authority). Such proposals also do not address the other reasons for viewing sections 706(a) and (b) as hortatory in light of the statutory text and structure.

[1013] *See, e.g.*, *Open Internet Order*, 25 FCC Rcd at 17968, 17972, paras. 117, 123.

[1014] *Id.* at 17969, para. 119.

[1015] *Verizon*, 740 F.3d at 656. The *Title II Order* continued to hold out the possibility that the interpretative canon that "the specific governs the general" might allow the use of section 706 of the 1996 Act as authority to independently impose requirements already addressed by the Communications Act or other statutory provisions, in that regard suggesting questions about whether section 706 of the 1996 Act necessarily would even be viewed as the more general provision. *See, e.g.*, *Title II Order*, 30 FCC Rcd at 5822, 5828-29, 5830, 5833-34, 5835, paras. 465 n.1392, 474 n.1434, 476 n.1440, 485 n.1460, 487 n.1468.

with other provisions of law" would meaningfully preclude the types of requirements that we find difficult to square with the carefully tailored authority in the Communications Act.[1016]

278. We also are unpersuaded by the *Open Internet Order*'s citation of legislative history to support its interpretation of section 706(a) and (b) as grants of regulatory authority. The *Open Internet Order* cited a Senate report for the proposition that those provisions of section 706 "are 'a necessary fail-safe' to guarantee that Congress's objective is reached."[1017] The Commission itself previously noted the ambiguous significance of that language.[1018] In addition, the relevant Senate bill at the time of the Senate report would have directed the Commission, in the event of a negative finding in its deployment inquiry, to "take immediate action *under this section*" and stated that "it may preempt State commissions that fail to act to ensure such availability."[1019] The final, enacted version of section 706(b), by contrast, omitted the language "under this section," and also omitted the express preemption language, leaving it ambiguous whether the statement in the Senate report was premised on statutory language excluded from the enacted provision.[1020] For its part, the conference report neither repeats the "fail-safe" language from the Senate report nor elaborates on the modifications made to the language in the Senate bill.[1021] Even if it were appropriate to consult legislative history, we conclude that that history is ultimately ambiguous and are not persuaded that it supports interpreting section 706(a) and (b) of the 1996 Act as grants of

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[1016] *Open Internet Order*, 25 FCC Rcd at 17969, para. 119. Conversely, if the fact that a matter is addressed by the Communications Act were a more serious constraint on claimed section 706(a) and (b) authority, it is unclear how meaningful such claimed authority would be in practice. It thus likewise would be unclear what affirmative reason we would have for interpreting them as grants of authority contrary to the other indicia that they are hortatory. For example, sections 201(b) and 202(a) of the Act prohibit unjust and unreasonable rates and practices and unjust an unreasonable discrimination with respect to common carrier services. 47 U.S.C. §§ 201(b), 202(a). If that precluded reliance on section 706(a) and (b) to impose analogous restrictions unbounded by the self-described scope of sections 201(b) and 202(a), the Commission seemingly would be left with no authority to adopt conduct rules of the sort at issue here after reclassification. *See Title II Order*, 30 FCC Rcd at 5724-25, paras. 283-84 (finding that conduct rules for broadband Internet access service when classified as a telecommunications service were justified as an implementation of sections 201 and 202 of the Act). Nor do commenters citing other possible uses of section 706(a) and (b) as authority explain how such exercise of authority could be reconciled with the view that it would be a serious constraint on claimed section 706(a) and (b) authority if a matter is addressed by the Communications Act (such as in sections 201 and 202, the market-opening provisions in sections 251-261, provisions designed to address barriers to infrastructure deployment like sections 224 and 254, or other provisions). *See, e.g.*, ACLP Comments at 28 (discussing potential use of section 706 to address harms caused by edge providers); Black Women's Roundtable Comments at 5, 6-7 (discussing potential use of section 706 to address redlining and to provide universal service support for broadband Internet access service); Cogent Comments at 22 (discussing potential use of section 706 to address Internet interconnection). Thus, interpreting the Communications Act as a more serious constraint might partially address one basis for interpreting section 706(a) and (b) as hortatory, but simultaneously would undercut the arguments in the record for interpreting them as grants of authority.

[1017] *Open Internet Order*, 25 FCC Rcd at 17969-70, para. 120 (quoting S. Rep. No. 104-23, at 50-51 (Mar. 30, 1995)), quoted in *Verizon v. FCC*, 740 F.3d at 639.

[1018] *Advanced Services Order*, 13 FCC Rcd at 24046, para. 75.

[1019] S. 652, § 304(b) (reported in the Senate, Mar. 30, 1995, emphasis added).

[1020] 47 U.S.C. § 1302(b); *see also, e.g.*, TechFreedom/ICLE 2014 Comments at 79 ("Beyond the Senate committee report, there is essentially no discussion of Section 706 in the legislative history. This would be bizarre if, indeed, Section 706 were intended to be alternative to the rest of the Act as a basis for regulation (even without trumping specific provisions of the Act).").

[1021] H.R. Conf. Rep. No. 104-458, at 224-25 (Jan. 31, 1996); *see also, e.g.*, Free State Foundation Comments at 36 ("You would have to believe that a Republican Congress with a deregulatory mandate inserted very vague language into the statute to give complete authority over the Internet and broadband to the FCC, but then didn't tell a soul. It didn't show up in the writings, it didn't show up in the summaries. It didn't show up in any of the stories at the time." (quoting speech by Commissioner O'Rielly)).

regulatory authority.

279. The inability to impose penalties to enforce violations of requirements adopted under section 706(a) and (b) of the 1996 Act also undercuts arguments that those provisions should be interpreted as grants of regulatory authority.[1022] Section 706 of the 1996 Act was not incorporated into the Communications Act,[1023] nor does the 1996 Act provide for it to be enforced as part of the Communications Act.[1024] Thus, the Communications Act provisions generally authorizing penalties do not apply to section 706 of the 1996 Act or rules adopted thereunder.[1025] Although the *Title II Order* claimed that section 706 of the 1996 Act included an implicit grant of enforcement authority,[1026] even under that theory, an 'implicit' grant of enforcement authority might enable actions like declaratory rulings or cease-and-desist orders, but would not appear to encompass authority to impose penalties given the absence of statutory language clearly granting that authority.[1027] As a fallback, the *Title II Order*

[1022] *See, e.g.*, Free State Foundation Comments at 36 ("You would have to believe that the conference committee intended to codify Section 706 outside of the Communications Act, thereby separating it from the enforcement provisions of the Act, Title V, but somehow we still expected it to be enforced. [The Communications Act was not amended to include Section 706.]" (quoting speech by Commissioner O'Rielly)); Furchtgott-Roth/Washington Legal Foundation Brief at 13-14 ("Section 706 similarly fails to grant FCC the authority to enforce compliance by requiring payment for noncompliance.").

[1023] *See, e.g.,* Telecommunications Act of 1996, § 1(b) ("Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Communications Act of 1934 (47 U.S.C. 151 et seq.)."); *id*. § 706 (adopting section 706 without any "amendment to, or repeal of, a section or other provision"); Broadband Data Improvement Act, Pub. L. No. 110-385 (2008), § 103 (modifying the section 706 inquiry process by amending "Section 706 *of the Telecommunications Act of 1996*" (emphasis added)). Although the *Verizon* court, in addition to other reasoning, referenced the statement in *Iowa Utils. Bd.* that "Congress expressly directed that the 1996 Act . . . be inserted into the Communications Act," that case dealt only with provisions of the 1996 Act that were expressly inserted into the Communications Act. *See Verizon*, 740 F.3d at 650 (quoting *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 377 (1999)).

[1024] Where Congress intended a statute outside the Communications Act to be enforced as if it were part of the Communications Act, it has expressly stated that in the relevant statute. *See, e.g.*, Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 STAT. 156, Title VI, § 6003 (2012) ("The Commission shall implement and enforce this title as if this title is a part of the Communications Act of 1934 (47 U.S.C. 151 et seq.). A violation of this title, or a regulation promulgated under this title, shall be considered to be a violation of the Communications Act of 1934, or a regulation promulgated under such Act, respectively."); NET 911 Improvement Act of 2008, Pub. L. No. 110-283, 122 STAT. 2620, § 101 (2008) (amending the Wireless Communications and Public Safety Act of 1999 to add a new section 6 and providing in section 6(e)(2): "The Commission shall enforce this section as if this section was a part of the Communications Act of 1934. For purposes of this section, any violations of this section, or any regulations promulgated under this section, shall be considered to be a violation of the Communications Act of 1934 or a regulation promulgated under that Act, respectively."); CAN-SPAM Act of 2003, Pub. L. No. 108-187, 117 STAT. 2699, § 7(b)(10) (2003) ("Compliance with this Act shall be enforced-- . . . under the Communications Act of 1934 (47 U.S.C. 151 et seq.) by the Federal Communications Commission with respect to any person subject to the provisions of that Act.").

[1025] In pertinent part, to enforce rules under section 503(b)(1) of the Communications Act, the rules must be "issued by the Commission under [the Communications] Act." 47 U.S.C. § 503(b)(1). Other penalty provisions in the Communications Act are specific to narrower topics or the statutory section in which they appear, and thus also would not be authorized penalties for violations of rules implementing section 706 of the 1996 Act. *See, e.g.*, 47 U.S.C. §§ 202(c), 203(e), 205(b), 214(d), 219(b), 220(d), 223(b), 362(a), 362(b), 386(a), 386(b), 507, 554.

[1026] *Title II Order*, 30 FCC Rcd at 5731, para. 298.

[1027] *See, e.g.*, *Gold Kist, Inc. v. Dept. of Ag.*, 741 F.2d 344, 347-48 (11th Cir. 1984) (discussing precedent and "hold[ing] that the statute must plainly establish a penal sanction in order for the agency to have authority to impose a penalty but that an agency has broad administrative powers to impose administrative sanctions that are not penalties as long as the sanctions are reasonably related to the purpose of the enabling statute").

asserted, without elaboration, that by relying on the grant of rulemaking authority in section 4(i) of the Communications Act to adopt rules implementing section 706 of the 1996 Act, the resulting rules would be within the scope of those for which forfeitures could be imposed under the Communications Act.[1028]

280. We believe that the better view is that reliance on the Communications Act for rulemaking authority alone would not render the resulting rules "issued by the Commission under [the Communications] Act" as required to trigger the forfeiture provisions of section 503 of the Act. Given that section 503 is about enforcement consequences from violating standards of conduct specified by, among other things, relevant Commission rules, we think that language is best read as focused on rules implementing the Commission's substantive regulatory authority under the Communications Act. Insofar as the substantive standard to which an entity is being held flows not from the Communications Act but from the Commission's assertion of authority under the 1996 Act, we believe that our forfeiture authority under section 503 of the Communications Act consequently would not encompass such rules. The practical inability to back up rules implementing section 706 with penalties thus undercuts the *Open Internet Order*'s claim that its interpretation would mean that section 706 of the 1996 Act could serve as a "'fail safe' that 'ensures' the Commission's ability to promote advanced services."[1029] Under our interpretation, by contrast, section 706(a) and (b) of the 1996 Act exhort the Commission to use Communications Act authority that it does, in fact, have authority to enforce through penalties. We thus are persuaded that section 706(a) and (b) of the 1996 Act are better interpreted as hortatory, rather than as grants of regulatory authority.[1030]

281. Our conclusion that section 706 of the 1996 Act is better read as hortatory is not at odds with the fact that two courts concluded that the Commission permissibly could adopt the alternative view that it is a grant of regulatory authority. Those courts did not find that the Commission's previous reading was the only (or even the most) reasonable interpretation of section 706, leaving the Commission free to adopt a different interpretation upon further consideration.[1031] Indeed, the D.C. Circuit in *Verizon* observed that the language of section 706(a) "certainly could be read" as hortatory.[1032] The court also recognized as much with respect to section 706(b), given its lack of clarity.[1033] Those cases thus leave us free to act on our conclusion here that section 706 is most reasonably read as hortatory, not as an independent grant of regulatory authority.

282. We also disagree with arguments that we should keep in place a misguided and flawed interpretation of section 706(a) and (b) of the 1996 Act to preserve any existing rules or our ability going

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[1028] *Title II Order*, 30 FCC Rcd at 5731, para. 298 n.769.

[1029] *Open Internet Order*, 25 FCC Rcd at 17969-70, para. 120.

[1030] Because we otherwise find ample grounds to conclude that section 706(a) and (b) of the 1996 Act are not grants of regulatory authority, we need not, and thus do not, address arguments claiming additional reasons to reach that same conclusion. *See, e.g.*, CEI Comments at 3-4; Free State Foundation Comments at 35; Furchtgott-Roth/Washington Legal Foundation Brief at 1; Interisle Comments at 10; TechFreedom/ICLE 2014 Comments at 73-74; Washington Legal Foundation Comments at 8-9; Alamo Reply at 9-10; TechFreedom Reply at 7-9. Likewise, because we conclude that section 706(a) and (b) do not grant regulatory authority at all, we need not, and do not, address the issue of whether any authority under those provisions is, at most, deregulatory authority. *See, e.g.*, CAGW Comments at 5-7; OTI New America Comments at 23; TechFreedom/ICLE 2014 Comments at 75-76; Alamo Reply, Attach. at 15. We also reject arguments that we should wait on the completion of the latest inquiry under section 706(b) before evaluating the interpretation of section 706. *See, e.g.*, OTI New America Reply at 21-22. Under the prior interpretation, section 706(a) was a grant of authority independent of section 706(b), and particularly insofar as we would not interpret section 706(b) as a grant of authority in any case, we see no reason to wait on the results of the inquiry under that provision.

[1031] *See, e.g.*, *USTelecom*, 825 F.3d at 733-34; *In re FCC11-161*, 753 F.3d 1049-54; *Verizon*, 740 F.3d at 636-42.

[1032] *Verizon*, 740 F.3d at 637.

[1033] *Id*. at 641.

forward to take regulatory action based on such assertions of authority. We are not persuaded by concerns that reinterpreting section 706(a) and (b) of the 1996 Act in this manner could undercut Commission rules adopted in other contexts because such arguments do not identify circumstances—nor are we otherwise aware of any—where the prior interpretation of the relevant provisions of section 706(a) and/or (b) was, in whole or in part, a necessary basis for the rules.[1034] We also are unpersuaded by arguments for maintaining the prior interpretation in a general effort to retain greater authority to regulate ISPs.[1035] Given that agencies like the Commission are creatures of Congress,[1036] and given our responsibility to bring to bear appropriate tools when interpreting and implementing the statutes we administer,[1037] we find it more appropriate to adopt what we view as the far better interpretation of section 706(a) and (b) given both the specific context of section 706 and the broader statutory context. If Congress wishes to give the Commission more explicit direction to impose certain conduct rules on ISPs, or to impose such rules itself within constitutional limits, it is of course free to do so. We decline to read such wide-ranging authority, however, into provisions that, on our reading today, are merely hortatory, and are at best ambiguous.[1038]

283. Independently, we also are not persuaded that the prior interpretation of section 706(a) and (b) of the 1996 Act would better advance policy goals relevant here. We have other sources of authority on which to ground our transparency requirements without adopting an inferior interpretation of

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[1034] *See, e.g.*, Public Knowledge Comments at 63; American Association of Community Colleges et al. Reply at 11; Cogent Reply at 11. Similarly, concerns that our interpretation will limit states' regulatory authority do not identify with specificity any concrete need for such authority beyond any authority provided by state law, even assuming *arguendo* that such authority could have flowed from the prior interpretation of section 706(a). *See, e.g.*, CPUC Comments at 33. MMTC and NABOB express concerns that disavowing section 706 as a source of authority could constrain the Commission's ability to address "digital redlining." MMTC-NABOB Dec. 4 *Ex Parte* Letter at 5-8. They do not explain, however, why other statutory provisions such as section 254 are inadequate to address issues of unserved or underserved communities should more ultimately be found to be needed beyond the Commission's other efforts to promote broadband deployment more generally.

[1035] *See, e.g.*, Akamai Comments at 13 (The NPRM "neither points to changed circumstances nor articulates any explanation for such a changed interpretation [of section 706], either as a general matter or—as relevant to this proceeding—consistent with the Commission's 'commitment to a free and open Internet.'"); ESA Comments at 15 (same); OTI New America Comments at 22 ("For instance, today's FCC could interpret it as hortatory, but a future FCC, if it so chose, could reverse that decision. Thus, the exercise is futile. Reinterpreting Section 706 would be essentially arbitrary, and the Commission should instead focus on protecting consumers from harmful and anticompetitive conduct."); Level 3 Comments at 14 ("In the absence of Congressional action, however, the Notice's proposal to reclassify consumer Internet access service as an information service, if coupled with a decision to interpret Section 706 of the 1996 Act as hortatory rather than a grant of substantive authority, brings substantial risk for the internet ecosystem and the public."); Public Knowledge Comments at 62 ("Thus, a minimizing interpretation of Section 706 does not give the Commission a means to pull the statutory rug out from under pro-consumer and pro-competitive rules under an air of legal inevitability. For example, the Commission cannot lament that it would like to enact certain privacy, transparency, or universal service rules, if only Congress would grant it the authority to do so—because Congress already has given it all the authority it needs. It would be arbitrary and capricious for the Commission to gut existing rules by claiming a lack of legal authority that has already been found to exist.").

[1036] *See, e.g.*, *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986) ("[A]n agency literally has no power to act . . . unless and until Congress confers power upon it.").

[1037] *See, e.g.*, *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2442 (2014) (When interpreting a statute we administer, "[e]ven under *Chevron's* deferential framework, agencies must operate within the bounds of reasonable interpretation. And reasonable statutory interpretation must account for both the specific context in which . . . language is used and the broader context of the statute as a whole." (citation and internal quotation marks omitted)).

[1038] *See, e.g.*, *Whitman v. Am. Trucking Ass'n*, 531 U.S. 457, 468, (2001) ("Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes.").

section 706(a) and (b). With respect to conduct rules, in addition to our decision that limits on our legal authority counsel against adopting such rules, we separately find that such rules are not otherwise justified by the record here. Consequently, we need not stretch the words of section 706 of the 1996 Act because we can protect Internet freedom even without it. Rather, we are persuaded to act in the manner that we believe reflects the best interpretation given the text and structure of the Act, the legislative history, and the policy implications of alternative interpretations.

b. Section 230 of the Communications Act

284. We are not persuaded that section 230 of the Communications Act grants the Commission authority that could provide the basis for conduct rules here. In *Comcast*, the D.C. Circuit observed that the Commission there "acknowledge[d] that section 230(b)" is a "statement [] of policy that [itself] delegate[s] no regulatory authority."[1039] Although the *NPRM* sought comment on section 230, the record does not reveal an alternative interpretation that would enable us to rely on it as a grant of regulatory authority for rules here.[1040] Instead, we remain persuaded that section 230(b) is hortatory, directing the Commission to adhere to the policies specified in that provision when otherwise exercising our authority. In addition, even assuming *arguendo* that section 230 could be viewed as a grant of Commission authority, we are not persuaded it could be invoked to impose regulatory obligations on ISPs. In particular, section 230(b)(2) provides that it is U.S. policy "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[1041] Adopting requirements that would impose federal regulation on broadband Internet access service would be in tension with that policy, and we thus are skeptical such requirements could be justified by section 230 even if it were a grant of authority as relevant here. Consequently, although section 230 is relevant to our interpretation and implementation of other statutory provisions, the record does not reveal a basis for relying on it as a source of regulatory authority for conduct rules here.

c. Other Provisions in Titles II, III, and VI of the Communications Act

285. Other identified sources of potential authority appear significantly limited and not capable of bringing all ISPs under one comprehensive regulatory framework. The *Open Internet Order* cited provisions in Titles II, III, and VI of the Communications Act in support of the conduct rules adopted there, and some commenters echo those theories—generally without elaboration.[1042] A number of those assertions of authority appear of uncertain validity on this record. The identified additional sources of potential authority, even collectively, do not appear to provide a sound basis for conduct rules that would encompass all ISPs.[1043] Further, even as to those ISPs that could be subject to conduct rules

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[1039] *Comcast*, 600 F.3d at 652.

[1040] Most arguments in the record regarding section 230 take the position that it does not grant regulatory authority that we could rely on here. *See, e.g.*, AARP Comments at 37; CenturyLink Comments at 40-41; Data Foundry/Golden Frog Comments at 31; OTI New America Comments at 24; NTCH/Flat Wireless Comments at 5. The few suggestions that it could be such a grant of authority do not develop that theory or explain how the Commission could adopt a different view than that identified in *Comcast*. *See, e.g.*, Internet Association Comments at 18; NCTA Comments at 58.

[1041] 47 U.S.C. § 230(b)(2).

[1042] Some comments identified possible sources of authority for rules other than the sorts of conduct rules at issue in this proceeding, and we do not discuss such other sources of authority here. *See, e.g.*, CenturyLink Comments at 54-55 (speculating about possible authority to impose public safety-related requirements on broadband Internet access service). We also are not persuaded by claims that section 1 of the Act is a grant of regulatory authority here. *See, e.g.*, Union Telephone et al. Dec. 7, 2017 *Ex Parte* Letter at 5-6. In this very context, the D.C. Circuit has held that section 1 is better understood as a statement of Congressional policy. *See Comcast*, 600 F.3d at 654.

[1043] We do not formally resolve the potential scope and contours of those claims of authority given the significant limitations in the record here and the potential for unanticipated spill-over effects, but the potential weaknesses—

(continued….)

under those statutory theories, in many cases the scope of conduct that could be addressed appears quite limited. The result of an attempt to exercise the identified potential authority thus would appear, at best, to result in a patchwork framework that appears unlikely to materially address many of the concerns historically raised to justify conduct rules while being likely to introduce regulatory distortions in the marketplace.

286. *Authority over ISPs That Also Offer Telecommunications Services*. On this record, claims of authority to adopt conduct rules governing ISPs that also offer telecommunications services have many shortcomings. The *Open Internet Order* contended that ISPs that also offer telecommunications services might engage in network management practices or prioritization that reduces competition for their voice services, arguably implicating section 201(b)'s prohibition on unjust or unreasonable rates or practices in the case of common carrier voice services and/or section 251(a)(1)'s interconnection requirements for common carriers.[1044] The *Open Internet Order* never squares these legal theories with the statutory prohibition on treating telecommunications carriers as common carriers when they are not engaged in the provision of telecommunications service or with the similar restriction on common carrier treatment of private mobile services.[1045] That *Order* also is ambiguous whether it is relying on these provisions for direct or ancillary authority. If claiming direct authority, the *Open Internet Order* fails to reconcile its theories with relevant precedent and to address key factual questions.[1046] Even in the more likely case that these represented theories of ancillary authority, the *Open Internet Order*'s failure to forthrightly engage with the theories on those terms leaves it unclear how conduct rules are sufficiently "necessary" to the implementation of section 201 and/or section 251(a)(1) to satisfy the standard for ancillary authority under *Comcast*.[1047] The limited, indirect references to section 201 and 251(a)(1) authority in the record here do not resolve these questions about possible section 201- or 251(a)(1)-based theories, either.[1048]

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unresolved on this record—nonetheless make us cautious about seeking to rely on them at this time. Insofar as our position regarding these additional potential sources of authority is at least a partial change in course from the positions taken in the *Open Internet Order*—which reflected a broader and/or less questioning view of these theories—we conclude that such a change in course is warranted by our analysis here, which identifies details or nuances in the required analysis that were not adequately addressed in the *Open Internet Order* or resolved on this record.

[1044] *Open Internet Order*, 25 FCC Rcd at 17972-74, paras. 125-26.

[1045] 47 U.S.C. §§ 153(51), 332(c)(2).

[1046] With respect to section 201, in the *Computer Inquiries*, for example, when the Commission concluded that facilities-based carriers' actions when offering enhanced services might affect the justness and reasonableness of their common carrier offerings under section 201, it responded by exercising ancillary authority, rather than direct authority under section 201. *See, e.g.*, *Comp. & Comms. Indus. Ass'n v. FCC*, 693 F.2d 198, 212-14 (D.C. Cir. 1982). With respect to section 251(a)(1), the Commission has held that that provision only involves the linking of networks and not the transport and termination of traffic. *See, e.g.*, *Total Telecommunications Services, Inc. v. AT&T Corp.*, File No. E-97-003, Memorandum Opinion and Order, 16 FCC Rcd 5726, 5736-38, paras. 22-27 (2001). The *Open Internet Order* does not explain why telecommunications carriers would seek to link their networks with other carriers by delivering traffic through a broadband Internet access service rather than through normal means of direct or indirect interconnection.

[1047] *See generally Comcast*, 600 F.3d 642.

[1048] *See, e.g.*, Akamai Comments at 14 ("The Commission's 2010 Open Internet Order also pointed to a number of Title II, III, and VI authorities as support for open Internet protections that would further the Commission's statutory responsibilities to promote competition in voice, audio, and video services. These authorities provide additional support particularly for rules that would protect voice, audio, and video service provided over broadband networks in competition with broadband providers' own voice, audio, or video services."); AT&T Comments at 108-09 ("Although the Commission did not elaborate on its rationale, Madison River's efforts to foreclose over-the-top VoIP competition to its regulated interstate telephone services threatened to frustrate the Commission's obligation to

(continued….)

287. The *Open Internet Order* also noted that section 256 of the Act addresses coordinated network planning related to interconnection, but did not put forward a theory for relying on that as authority for conduct rule.[1049] To the contrary, it cited the holding in *Comcast* "acknowledging Section 256's objective, while adding that Section 256 does not 'expand[] . . . any authority that the Commission[] otherwise has under law.'"[1050] To the extent that commenters here mention section 256 at all, they do not explain how the Commission could overcome that holding in *Comcast* for purposes of relying on that provision as authority for rules here.[1051]

288. An alarm company urges us to rely on section 275 of the Act, but we see substantial shortcomings in using as a basis for ancillary authority for conduct rules. Section 275 of the Act imposes certain nondiscrimination requirements on incumbent LECs related to alarm monitoring services, along with restrictions on all LECs' recording or use of data from calls to alarm monitoring providers for purposes of marketing competing alarm monitoring services.[1052] Arguments that ancillary authority based on section 275 could support rules that prohibit ISPs that also offer alarm monitoring services from blocking or throttling alarm monitoring traffic or engaging in anticompetitive paid prioritization of alarm monitoring traffic are premised on a reading of section 275 as a far broader mandate to protecting alarm monitoring competition than the specifics of its language support.[1053] Given the Commission's existing ability to directly apply the duties and restrictions of section 275 to the specific entities covered by that section, the record leaves us unable to conclude that the proposed alarm monitoring-related ISP conduct rules are sufficiently "necessary" to our implementation of section 275 to satisfy the standard for ancillary authority under *Comcast*.[1054] Nor does the record demonstrate what basis we have for the proposed exercise of ancillary authority to regulate any ISPs that fall outside the scope of section 275 but that offer alarm monitoring services.[1055]

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ensure that the charges for those services were just and reasonable. . . . More generally, the Commission could invoke ancillary authority to prohibit an ISP from anticompetitively excluding online services that directly compete with its own regulated services whenever doing so 'is necessary to further [the Commission's] regulation of activities over which it [has] express statutory authority' under Titles II, III, or VI."); ESA Comments at 16-17 ("[T]he Commission's *2010 Open Internet Order* pointed to a number of Title II, III, and VI authorities as support for open Internet protections that would further the Commission's statutory responsibilities to promote competition in voice, audio, and video services. These authorities provide additional support particularly for rules that would protect online voice, audio, and video service that compete with broadband providers' own voice, audio, or video services."); NCTA Comments at 57 ("The Commission also could consider other statutory bases for authority for enforcement in this area. Notably, the *2010 Open Internet Order* cited various provisions in Titles I, II, III, and VI as possible additional grants of authority on top of its Section 706 authority.").

[1049] *Open Internet Order*, 25 FCC Rcd at 17973-74, para. 126 & n.397.

[1050] *Id*. (quoting *Comcast*, 600 F.3d at 659).

[1051] *See, e.g.*, NCTA Comments at 58.

[1052] 47 U.S.C. § 275(b), (c). In addition, section 275(a) initially restricted BOCs' provision of alarm monitoring services until 2001. 47 U.S.C. § 275(a).

[1053] *Compare* Letter from Michael H. Pryor, Counsel for ADT, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 5 (filed Oct. 11, 2017) ("Section 275 confers a statutorily mandated responsibility on the Commission to protect independent alarm monitoring services from discrimination by network providers offering competing alarm services.") *with* 47 U.S.C. § 275(a), (b), (c) (restricting BOC provision of alarm monitoring until 2001, imposing specific nondiscrimination requirements on incumbent LECs, and restricting marketing of competing alarm monitoring services by LECs using alarm monitoring calls).

[1054] *See generally Comcast*, 600 F.3d 642.

[1055] *See, e.g.*, *EchoStar Satellite LLC v. FCC*, 704 F.3d 992, 999 (D.C. Cir. 2013) ("The FCC is powerless to wield its ancillary jurisdiction, however, where 'there are strong indications that agency flexibility was to be sharply

(continued….)

289. *Authority With Respect to Audio and Video*. The *Open Internet Order*'s theories of authority related to Commission oversight of audio and video offerings have significant deficiencies, as well. In that *Order*, the Commission argued that because local television stations and radio stations distributed their content over the Internet, actions by ISPs to block, degrade, or charge unreasonable fees for carrying such traffic would interfere with certain statutory responsibilities.[1056] Once again, the Commission was unclear whether it was asserting direct or ancillary authority. The *Open Internet Order* cited policy pronouncements from provisions of the Act and associated precedent without any clear indication how the underlying authority directly applied to ISPs' conduct.[1057] To the extent that the *Open Internet Order* was claiming ancillary authority, its failure to forthrightly engage with an ancillary authority theory again leaves it unclear how conduct rules are sufficiently "necessary" to its implementation of these provisions to satisfy the standard for ancillary authority under *Comcast*,[1058] nor are these issues adequately addressed by the limited references to this potential authority in the record.[1059]

290. We find significant limitations to the *Open Internet Order*'s theories based on direct authority under Title VI of the Act, as well. The Commission contended in the *Open Internet Order* that "MVPD practices that discriminatorily impede" competing online video are a "related practice" to video program carriage agreements and thus subject to the restrictions in section 616(a) of the Act.[1060] That expansive view of a "related practice" seems challenging to square with the overall structure and approach of section 616, which is focused on facilitating program carriage agreements between video programming vendors and MVPDs. But the *Open Internet Order* suggests that an MVPD/ISP could violate rules implementing section 616(a) with respect to the programming of a video programming vendor that never even sought a program carriage agreement with that MVPD. In such cases, there appears to be no actual or potential program carriage agreement to which the MVPD/ISP's conduct would be a "related practice[]."[1061] Neither the *Open Internet Order* nor the record here provides a response enabling us to address these concerns.[1062]

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delimited.' Section 624A's textual delegation of authority to regulate cable systems, as opposed to all MVPDs, is precisely such an indication." (citation omitted)).

[1056] *Open Internet Order*, 25 FCC Rcd at 17975, para. 128.

[1057] For example, the Commission cited sections 303(f) and (h) of the Act as "establishing the Commission's authority to allocate broadcasting zones or areas and to promulgate regulations 'as it may deem necessary' to prevent interference among stations" without explaining how the ISP conduct rules directly involved the allocation of broadcasting zones or areas or interference among stations. *See* 47 U.S.C. § 303(f), (h) cited in *Open Internet Order*, 25 FCC Rcd at 17975, para. 128 n.402. The Commission also cited section 307(g), which appears to contemplate the use of licensing to promote the "fair, efficient, and equitable distribution of radio service," and *Nat'l Broad. Co.*, which was a case involving the Commission's promotion of the "more effective use of radio" through chain broadcasting rules covered by an express grant of authority in section 303(i). *See* 47 U.S.C. § 307(g) and *Nat'l Broad. Co. v. U.S.*, 319 U.S. 190 (1943) cited in *Open Internet Order*, 25 FCC Rcd at 17975, para. 128 & n.403. However, the conduct rules were not limited to licensing of video or audio service providers and did not purport to address a matter expressly addressed by a grant of authority in section 303 like section 303(i). The Commission also cited *Southwest Cable*, which was a case about the FCC's ancillary authority. *See United States v. Sw. Cable Co.*, 392 U.S. 157 (1968) cited in *Open Internet Order*, 25 FCC Rcd at 17975, para. 128 n.402.

[1058] *See generally Comcast*, 600 F.3d at 642.

[1059] *See supra* note 1048.

[1060] *Open Internet Order*, 25 FCC Rcd at 17978, para. 132.

[1061] 47 U.S.C. § 536(a). To the contrary, the broader structure of section 616(a) seems to contemplate that there would be some effort by the video programming vendor to obtain carriage, subject to the possibly of a complaint. *See id*.

[1062] *See supra* note 1048.

291. The *Open Internet Order*'s legal theory under section 628 of the Act also appears to have substantial shortcomings. The *Open Internet Order* contended that "[a] cable or telephone company's interference with online transmission of programming by DBS operators or stand-alone online video programming aggregators that may function as competitive alternatives to traditional MVPDs would frustrate Congress's stated goals in enacting Section 628 of the Act" and "[t]he Commission therefore is authorized to adopt open Internet rules under Section 628(b), (c)(1), and (j)."[1063] Under the terms of the statute, that at most could restrict such entities' conduct if it constitutes "unfair or deceptive acts or practices the purpose or effect of which is to prevent or hinder significantly the ability of an MVPD to deliver satellite cable programming or satellite broadcast programming."[1064] The cursory discussion in the *Open Internet Order*, while suggesting that ISP practices could have some effect on the viability of stand-alone MVPDs like DISH, does not provide any meaningful explanation why particular conduct would rise to the level of "prevent[ing] or significantly hinder[ing]" DISH (or others) from being able to deliver satellite cable programming or satellite broadcast programming.[1065] The minimal discussion of this Title VI authority in the record here does not remedy that shortcoming either.[1066]

292. *Authority With Respect to Wireless Licensees*. Although the Commission could rely on Title III licensing authority to support conduct rules as it has in the past,[1067] that historical approach would result in disparate treatment of ISPs, enabling conduct rules encompassing wireless ISPs, but not wireline ISPs.[1068] For the reasons set forth below, we decline to adopt a patchwork of rules that subjects different categories of ISPs to different treatment.[1069] In addition, applying conduct rules just to such providers would have the anomalous result of more heavily regulating providers that face among the most competitive marketplace conditions.[1070]

d. Our Evaluation of Possible Authority for Conduct Rules Confirms That Such Rules Are Inappropriate

293. Our analyses of potential theories of legal authority for conduct rules (other than Title II authority relied upon in the *Title II Order*) persuades us on the record here that ISP conduct rules are

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[1063] *Open Internet Order*, 25 FCC Rcd at 17975-76, 178-79, paras. 129, 131.

[1064] 47 U.S.C. § 548(b).

[1065] Although the D.C. Circuit has accepted the possibility that "an MVPD's lack of commercial attractiveness [could] prevent or significantly hinder it from providing satellite programming," it anticipated the Commission acting on the basis of "evidence that [the relevant conduct] 'hinder[s] significantly,' . . . an MVPD from competing with the incumbent cable operator to deliver satellite programming to customers," for example. *Cablevision Systems Corp. v. FCC*, 649 F.3d 695, 708, 709 (D.C. Cir. 2011).

[1066] *See supra* note 1048.

[1067] *See, e.g.*, Akamai Comments at 13; Digital Policy Institute, Attach. 3; ESA Comments at 16; Catherine Sandoval Reply, Attach. April 26, 2010 Reply, GN Docket No. 09-191, WC Docket No. 07-52 at 9-10.

[1068] *See, e.g.*, Akamai Comments at 13 ("With respect to mobile broadband service, for example, the Commission can rely on what the Supreme Court has described as its 'expansive powers' to license spectrum under Title III of the Communications Act."); Digital Policy Institute, Attach. 3; ESA Comments at 16 (same); Catherine Sandoval Reply, Attach. April 26, 2010 Reply, GN Docket No. 09-191, WC Docket No. 07-52 at 9-10 ("The FCC need not resort to ancillary jurisdiction to regulate wireless ISPs as it specifically reserved direct jurisdiction over wireless ISPs under Title III's licensing conditions and rules.").

[1069] *See supra* Part d.

[1070] *See, e.g.*, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 17-69, Twentieth Report, 32 FCC Rcd 8968, 9037-38, paras. 93-94 (2017) (concluding that there is effective competition for mobile wireless services).

unwarranted.[1071] The two provisions most directly on point—section 706 of the 1996 Act and section 230(b) of the Communications Act—are better read as policy pronouncements rather than grants of regulatory authority.[1072] In addition, section 230(b)(2) identifies Congress' deregulatory policy for the Internet, explaining that "[i]t is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[1073] This policy is reinforced by the deregulatory objectives of the 1996 Act more generally.[1074] Against that policy backdrop, had Congress wanted us to regulate ISPs' conduct we find it most likely that they would have spoken to that directly. Thus, the fact that the Commission would be left here to comb through myriad provisions of the Act in an effort to cobble together authority for ISP conduct rules itself leaves us dubious such rules really are within the authority granted by Congress.

294. In addition, the absence of demonstrated statutory authority that could support comprehensive conduct rules would leave us with, at most, a patchwork of non-uniform rules that would have problematic consequences and doubtful value. Virtually all of the remaining sources of possible authority identified in the *Open Internet Order* or the record here would encompass only discrete subsets of ISPs, such as ISPs that otherwise are providing common carrier voice services; ISPs that otherwise are cable operators or MVPDs; or ISPs that hold wireless licenses, among others. Individually, each of these sources of authority would leave substantial segments of ISPs unaddressed by any conduct rules. In addition, most of the remaining sources of authority would, at most, enable the Commission to target narrow types of behaviors, including, among other examples, actions by ISPs that otherwise offer common carrier voice services to interfere with competing over-the-top voice services or actions by certain ISPs that otherwise are video providers that harm the distribution of satellite programming. Importantly, substantial questions also remain on the record here about the merits of most of those theories of legal authority. For example, most if not all wired ISPs would appear to fall outside the scope of any sound basis of authority for conduct rules addressing the theories of harm identified in the *Open Internet Order*. This would leave substantial portions of the marketplace unaddressed by conduct rules

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[1071] Because we decline to adopt conduct rules here, we need not reach the arguments in the record that imposing such rules on ISPs would violate the First Amendment. *See, e.g.*, Furchtgott-Roth/Washington Legal Foundation Comments at 6-10; R Street Comments at 19-20; Geoffrey A. Manne et al., *A Conflict of Visions: How the "21st Century First Amendment" Violates the Constitution's First Amendment*, 13 First Amend. L. Rev. 319, 343-45 (2015) *cited in* R Street Comments at 19 n.68; Tech Knowledge Comments, Attach., 94 Neb. L. Rev. 559, 601-15 (2016); Alamo Reply, Attach. at 7-8; Brent Skorup/Mercatus Center Reply at 10-13. We are unpersuaded by the suggestion that allowing ISPs to enter paid prioritization arrangements, even if subject to a commercial reasonableness standard, would trigger First Amendment scrutiny as a restriction on entities wishing to transmit speech on the Internet. *See, e.g.*, Catherine Sandoval Aug. 30, 2017 *Ex Parte* Letter, Exh. C at 5-6. The failure to restrict ISPs' actions through conduct rules does not require ISPs to act in any particular manner, and those arguments do not reveal why allowing ISPs to decide whether and when to enter paid prioritization arrangements would constitute state action triggering the First Amendment. *See, e.g.*, *Loce v. Time Warner Entertainment Advance/Newhouse Partnership*, 191 F.3d 256, 266 (2d Cir. 1999) ("The First Amendment applies only to state actors. In order to establish a First Amendment claim against a private entity based on the entity's relationship to the state, a plaintiff must demonstrate, inter alia, 'a sufficiently close nexus between the State and the challenged action of the regulated entity so that the action of the latter may be fairly treated as that of the State itself.' Such a nexus may be found, for example, where a private actor has operated as a 'willful participant in joint activity with the State or its agents.' In the absence of such a nexus, a finding of state action may not be premised on the private entity's creation, funding, licensing, or regulation by the government. Nor is a private entity a state actor merely because its conduct is authorized by a state law, where its conduct is not compelled by the state." (citations omitted)).

[1072] *See supra* Parts a, b.

[1073] 47 U.S.C. § 230(b)(2).

[1074] *See* Preamble to the Telecommunications Act of 1996 ("AN ACT To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.").

including a number of the largest ISPs.[1075]

295. Imposing conduct rules on only some, but not all, ISPs risks introducing regulation-based market distortions by limiting some ISPs' ability to participate in the marketplace in a manner equivalent to other ISPs. ISPs subject to conduct rules would be limited in the ways in which they could manage traffic on their networks and/or the commercial arrangements they could enter related to their carriage of traffic beyond the requirements to which other ISPs are subject. As a result, they are likely to face increased network costs and network management challenges and see decreased revenue opportunities from commercial arrangements relative to existing or potential competitors not similarly constrained by conduct rules.[1076] In various contexts, the Commission previously has recognized that such artificial regulatory distinctions can distort the marketplace and undercut competition.[1077] The primary objectives of the 1996 Act are "[t]o promote competition and reduce regulation,"[1078] and the Commission likewise has observed that "[c]ompetitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production."[1079] Thus, the risk that disparate regulatory treatment under patchwork conduct rules could harm existing or potential competition is a significant concern. Even assuming

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[1075] Wired connections accounted for approximately 30 percent of residential high speed Internet access connections as of December 2016 (FCC Form 477 Subscription Data, December 2016); Hal Singer, *2016 Broadband Capex Survey: Tracking Investment in the Title II Era* (Mar. 1, 2016) (listing the 12 largest ISPs, including a number that are primarily or exclusively wired providers), https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era.

[1076] *See, e.g.*, Cause of Action Comments at 3-4; CEI Comments at 2-3; CenturyLink Comments at 34; Gogo Comments at 6; R Street Comments at 22-25; CTIA Reply at 42-43.

[1077] *See, e.g.*, *BDS Order*, 32 FCC Rcd at 3531, para. 158 (explaining that "disparate forbearance treatment of carriers providing the same or similar services is not in the public interest as it creates distortions in the marketplace that may harm consumers") *pets. for review pending*; *Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240, 5317-19, 5320-21, paras. 174-78, 181 (2011) (asserting that competitive disparities arising from telecommunications carriers paying higher pole attachment rates than their cable operator competitors as part of the policy rationale for the telecom rate change adopted there), *aff'd sub. nom. Am. Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183 (D.C. Cir. 2013); *Regulatory Treatment For Broadband Access To the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5920, para. 53 (2007) (explaining that interpreting the commercial mobile service definition to encompass information services would lead to disparate treatment relative to telecommunications carriers also offering the same information service and "would introduce competitive distortions into the marketplace," and "absurd" result that counseled against such an interpretation); *Section 257 Proceeding To Identify and Eliminate Market Entry Barriers For Small Businesses*, Report, 12 FCC Rcd 16802, 16805, para. 3 (1997) ("[T]he Commission has taken a variety of measures to fulfill the four national policy objectives set forth in Section 257(b). First, with respect to 'vigorous economic competition,' we have defined the term 'market entry barrier' in a manner that facilitates entry by small businesses yet avoids unwarranted regulatory intervention that could distort a competitive marketplace. By including only those impediments that significantly distort market operations and harm consumer welfare within the definition of 'market entry barriers,' the Commission has recognized that economically unjustified intervention actually would thwart the policy goal of promoting vigorous competition." (footnote omitted)); *see also, e.g.*, Comcast Comments at 83 ("In stark contrast to the traditional telecommunications marketplace—where incumbent providers long enjoyed state-sanctioned monopolies—all broadband providers have been 'new entrants' over the last two decades and, therefore, they should all be treated alike. In other analogous contexts, the Commission has long recognized that arbitrary technology-based distinctions distort competition and ultimately harm consumers."); Cox Comments at 28; NCTA Comments at 62 ("[P]arity between fixed and mobile providers is necessary to comport with the Commission's longstanding commitment to ensuring technological neutrality and thereby avoiding the creation of unwarranted marketplace distortions."); ACA Reply at 44.

[1078] Preamble to the Telecommunications Act of 1996.

[1079] *Access Charge Reform, et al.*, CC Docket Nos. 96-262, 94-1, 91-213, 95-72, First Report and Order, 12 FCC Rcd 15982, 16094-95, para. 123 (1997).

arguendo that the record demonstrated harms for which conduct rules were warranted—which it does not[1080]—the record does not demonstrate that any incremental benefits from patchwork regulation would outweigh the harm from the resulting potential for marketplace distortions.

296. Patchwork conduct rules also would not appear to address many of the theories of harm identified in the *Open Internet Order*. A number of those theories of harm would need to be addressed by comprehensive or near-comprehensive conduct rules.[1081] Here, by contrast, substantial segments of the marketplace would be left unaddressed by patchwork ISP conduct rules. Thus, patchwork conduct rules that conceivably might be supported by authority identified here would not meaningfully address such concerns, even assuming *arguendo* that the record here supported such theories of harm.

C. Enforcement

297. In light of the modifications to our regulations, we also revise our enforcement practices under them. The *Internet Freedom NPRM* sought comment on the Commission's Ombudsperson, formal complaint rules, and advisory opinions established in the *Title II Order*.[1082] For the reasons discussed below, we remove these enforcement mechanisms. Our existing informal complaint procedures combined with transparency and competition, as well as antitrust and consumer protection laws, will ensure that ISPs continue to be held accountable for their actions, while removing unnecessary and ineffective regulatory processes and unused mechanisms.

298. *Open Internet Ombudsperson*. We find that there is no need for a separate Ombudsperson and thereby eliminate the Ombudsperson position. The *Title II Order* created the role of an Ombudsperson "to provide assistance to individuals and organizations with questions or complaints regarding the open Internet to ensure that small and often unrepresented groups reach the appropriate bureaus and offices to address specific issues."[1083] In particular, the *Title II Order* tasked the Ombudsperson with "conducting trend analysis of open Internet complaints and, more broadly, market conditions, that could be summarized in reports to the Commission regarding how the market is functioning for various stakeholders . . . . [and] investigat[ing] and bring[ing] attention to open Internet concerns, and refer[ing] matters to the Enforcement Bureau for potential further investigation."[1084] We agree that it is important for the Commission to have staff who monitor consumer complaints and provide

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[1080] *See supra* Part III.C.

[1081] Many theories of harm identified in the *Open Internet Order* as justifying conduct rules were premised on harm flowing from the aggregate effects of practices by ISPs broadly. *See, e.g.*, *Open Internet Order*, 25 FCC Rcd at 17920-21, para. 26 ("[I]f edge providers need to negotiate access or prioritized access fees with broadband providers, the resulting transaction costs could further raise the costs of introducing new products and might chill entry and expansion." (footnote omitted)); *id*. at 17922-23, para. 30 ("[I]f broadband providers could block specific content, applications, services, or devices, end users and edge providers would lose the control they currently have over whether other end users and edge providers can communicate with them through the Internet. Content, application, service and device providers (and their investors) could no longer assume that the market for their offerings included all U.S. end users."); *id*. at 17927-28, para. 38 ("Widespread interference with the Internet's openness would likely slow or even break the virtuous cycle of innovation that the Internet enables, and would likely cause harms that may be irreversible or very costly to undo."); *id*. at 17929-31, para. 42 ("For those who communicate and innovate on the Internet, and for investors in edge technologies, there is great value in having confidence that the Internet will remain open." (footnotes omitted)). Other theories identified harm to the marketplace as a whole that could be caused by one or a small number of ISPs. *See, e.g.*, *id.* at 17920-21, para. 26 ("These emerging providers are particularly sensitive to barriers to innovation and entry, and may have difficulty obtaining financing if their offerings are subject to being blocked or disadvantaged by one or more of the major broadband providers." (footnote omitted)).

[1082] *Internet Freedom NPRM*, 32 FCC Rcd at 4465-66, paras. 96-99.

[1083] *Title II Order*, 30 FCC Rcd at 5715, para. 256.

[1084] *Id*.

consumers with additional information; however, we disagree that a separate Ombudsperson role is necessary to perform this function specifically for transparency complaints.[1085] Instead, as suggested in the record, we determine that the existing consumer complaint process administered by the Commission's Consumer and Governmental Affairs Bureau is best suited to and will process all informal transparency complaints.[1086]

299. We find that staff from the Consumer and Governmental Affairs Bureau—other than the Ombudsperson—have been performing the Ombudsperson functions envisioned by the *Title II Order*. Since the existing rules became effective in June 2015, the Consumer and Governmental Affairs Bureau has engaged in an ongoing review of informal consumer complaints submitted to the Ombudsperson and to the Commission's Consumer Complaint Center.[1087] Many complaints convey frustration or dissatisfaction with a person or entity or discuss a subject without actually alleging wrongdoing on which the Commission may act; others represent isolated incidents that do not form a trend that allow judicious use of our limited resources. Staff from the Consumer and Governmental Affairs Bureau review all informal open Internet complaints received by the Commission, and work with staff in the Enforcement Bureau who also monitor media reports and conduct additional research to identify complaint trends so the Commission can best target its enforcement capabilities toward entities that have a pattern of violating the Communications Act and the Commission's rules, regulations, and orders. The Commission's decision not to expend its limited resources investigating each complaint that consumers believe may be related to the open Internet rules does not mean that the Commission "has not taken the time to analyze these materials" as alleged by some parties in the record.[1088] Rather, this ongoing review has helped identify trends in this subject matter as well as the many others over which we have jurisdiction and which generate far more consumer complaints.[1089]

[1085] *See, e.g.*, NY City Council Progressive Caucus Comments at 5 ("When a user seeks additional information, the Commission must provide rules and an ombudsman to facilitate and enforce those disclosures to that user and the world at large.").

[1086] *See, e.g.*, ADTRAN Comments at 31 ("[T]here is no need for a separate Ombudsperson, since that role can readily be fulfilled by the Commission's Consumer and Governmental Affairs Bureau."); CenturyLink Comments at 37 ("The Commission should eliminate the ombudsman, advisory opinions and the broad delegated authority grant created by the Title II Order- as well as the Open Internet complaint procedures. These procedures have not been utilized and only create another layer of unnecessary regulatory overhang."). We reject as unsupported any suggestions that only an Ombudsperson, and not other professional staff from the Consumer and Governmental Affairs Bureau, would be able to engage with consumers in beneficial ways. *See, e.g.*, National Multicultural Organizations Comments at 28-29 ("[T]he Ombudsperson serves the important role of protecting and promoting the interest of consumers, particularly individuals from more vulnerable populations, who may be new to using broadband and have less confidence in their digital literacy."). Indeed, the name, purpose, and well-established track record for that Bureau make clear its understanding of and responsiveness to consumer concerns.

[1087] Quantitative data about these complaints as well as their general subject matter are publicly available, but due to the personally identifiable information often included in these complaints, the actual complaints are not typically released. *See* Consumer Complaint Data Center, https://www.fcc.gov/consumer-help-center-data (last visited Nov. 20, 2017).

[1088] *See* NHMC Response at 3; *see also* Internet Freedom Coalition Reply at 7 ("[The Commission] proposes to eliminate the ombudsperson role established to assist consumers without any analysis of the two years of communications, approximately 1,500 emails between the ombudsperson and consumers.").

[1089] *See, e.g.*, *Adrian Abramovich, Marketing Strategy Leaders, Inc., and Marketing Leaders, Inc.*, EB-TCD-15-00020488, Notice of Apparent Liability, 32 FCC Rcd 5418, para. 1 ("The Enforcement Bureau [] has investigated complaints regarding Abramovich's alleged scheme involving spoofed robocalls. . .") (*Abramovich NAL*). The *Abramovich NAL* also notes that complaints about illegal robocalls are "the number one consumer complaint received by the Federal Communications Commission." *Id.* at 5418, para. 1. *See also AT&T Mobility*, *LLC, Notice of Apparent Liability*, 30 FCC Rcd 6613, 6618, para. 15 (2015) ("[T]he Commission has received thousands of complaints from AT&T's unlimited data plan customers alleging that they have had their speeds intentionally

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300. We emphasize that we are not making any changes to our informal complaint processes. Our decision to eliminate the Open Internet Ombudsperson does not impact the existing review of trends or existing responses to consumer complaints by the Consumer and Governmental Affairs Bureau and the Enforcement Bureau. Instead, it reduces confusion by making clear that staff specifically trained to work with consumers, known as Consumer Advocacy and Mediation Specialists (CAMS), are best suited to help consumers by providing them with understandable information about the issue they might be experiencing and to help file a complaint against a service provider if the consumer believes the service provider is violating our rules. When a consumer needs additional information that the CAMS cannot provide, that complaint is often shared with the expert Bureau or Office to provide additional information to the consumer.

301. Our experience also persuades us that the demand for a distinct Ombudsperson is not sufficient to retain the position. For the 10 month period from December 16, 2016 through November 16, 2017, the email address and phone number associated with the Ombudsperson received only 38 emails and 10 calls related to the open Internet— with only 7 emails and 2 calls coming in during the 5 month period between mid-July and mid November 2017.[1090] By comparison, during that same time period, the Consumer and Governmental Affairs Bureau's Consumer Complaint Center received roughly 7,700 complaints that consumers identified as relating to open Internet.[1091] These statistics make clear that consumers have generally not been seeking out the Ombudsperson position for assistance with concerns about Internet openness and that consumers are comfortable working with the Consumer and Governmental Affairs Bureau to protect their interests.

302. *Formal Complaint Rules.* We similarly find that it is no longer necessary to allow for formal complaints under Part 8 of the Act as we believe that the informal complaint process is sufficient in this area.[1092] We encourage consumers to file informal complaints for apparent violations of the transparency rule in order to assist the Commission in monitoring the broadband market and furthering our goals under section 257 to identify market entry barriers.[1093] We also note that under the revised regulatory approach adopted today, consumers and other entities potentially impacted by ISPs' conduct will have other remedies available to them outside of the Commission under other consumer protection laws to enforce the promises made under the transparency rule.

303. *Advisory Opinions.* Because we are eliminating the conduct rules, we find that the justification for enforcement advisory opinions no longer exists. Moreover, our experience with enforcement advisory opinions and the evidence in the record would lead us to eliminate the use of advisory opinions in the context of open Internet conduct in any event. The record indicates that

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reduced, and who claim that they purchased an unlimited data plan and are not getting the services that they paid for.").

[1090] While there has not been a named Open Internet Ombudsperson since the last person to serve as the Ombudsperson resigned from the role on January 6, 2017, CGB staff has continuously monitored the email and phone account associated with the Ombudsperson account. *See* Margaret Harding McGill, *FCC Leaves Vacant Net Neutrality Consumer Complaint Contact*, Politico (Oct. 13, 2017).

[1091] This figure includes complaints filed through the Consumer Complaint Center and the FCC Call Center for which the consumer self-selected the issue "Open Internet/Net Neutrality" or the call center agent selected "Open Internet" based on the consumer's description of the issue, and does not exclude open Internet campaigns.

[1092] *See*, *e.g.*, CenturyLink Comments at 37 ("[E]liminate the Open Internet complaint procedures, which have virtually never been used. Instead, [ ] rely on standard Commission practices to addresses any concerns that may be raised in this area going forward."); ADTRAN Comments at 31 ("[T]here is no need for any special formal complaint procedures applicable just to Open Internet issues.").

[1093] *See supra* Part IV.B.1.

enforcement advisory opinions do not diminish regulatory uncertainty, particularly for small providers.[1094] Rather they add costs and uncertain timelines since there is no specific timeframe within which to act, which can also inhibit innovation.[1095] Further, the fact that no ISP has requested an advisory opinion since they first became available further demonstrates that they are not needed.

V. COST-BENEFIT ANALYSIS

304. The *Internet Freedom NPRM* solicited input for a cost-benefit analysis in this proceeding, with special emphasis on identifying "whether the decision will have positive net benefits."[1096] There was generally favorable record support for conducting this analysis.[1097] Relying on the findings discussed above in light of the record before us and as a result of our economic analysis, we use a cost-benefit analysis framework to evaluate key decisions. While the record provides little data that would allow us to quantify the magnitudes of many of the effects, our findings with respect to the key decisions we make in this Order allow for a reasonable assessment of the direction of the effect on economic efficiency (i.e. net positive or net negative benefits[1098]). This assessment is equivalent to conducting a qualitative cost-benefit analysis, because the purpose of comparing benefits and costs is to identify whether a policy change improves economic efficiency.[1099]

305. As proposed in the *Internet Freedom NPRM*, we evaluate maintaining the classification of broadband Internet access service as a telecommunications service (i.e., Title II regulation);[1100] maintaining the Internet conduct rule; maintaining the no-blocking rule; maintaining the no-throttling rule; and maintaining the ban on paid prioritization.[1101] We also evaluate the benefits and costs associated with transparency regulations. We make each of these evaluations by organizing the relevant economic

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[1094] *See, e.g.*, ACA Reply at 17 ("For a smaller ISP, seeking a non-binding advisory opinion from the Commission offers cold comfort. Even receiving a favorable advisory opinion does not meaningfully decrease the level of regulatory risk smaller ISPs are comfortable taking on. Pursuing an advisory opinion is also costly. There are direct costs associated with preparing and submitting a formal request and opportunity costs associated with waiting for a decision to be issued."); Comcast Comments at 72-73 ("The 'advisory opinion' process established in the Title II Order offers no real relief from these harmful, unintended consequences of the general conduct standard.").

[1095] WISPA Comments at 68-69 ("The absence of specific timeframes for the Bureau to act makes the value of Advisory Opinions illusory and essentially unavailable to small providers."); *see also supra* para. 252.

[1096] *Internet Freedom NPRM*, 32 FCC Rcd at 4468, para. 106. We reject the argument that the *Internet Freedom NPRM* provided inadequate notice regarding our cost-benefit analysis here. *See* INCOMPAS Comments at 83-89. The Commission made clear in the *NPRM* that it "propose[d] to compare the costs and the benefits" of each of the "changes for which we seek comment above." It also provided detailed guidance to commenting parties about the way in which the Commission proposed to conduct its cost-benefit analysis, and the nature of the information it was seeking in order to do so. The result is a robust record on we have based our analysis. *See Internet Freedom NPRM*, 32 FCC Rcd at 4468-70, paras. 105-16. Moreover, the *NPRM* plainly provided "the terms or substance of the proposed rule," 5 U.S.C. § 553(b)(3), and also provided "sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully." *USTelecom,* 825 F.3d at 700. Nor can there be any question that "[t]he final rule" is a "logical outgrowth" of the notice. *Id.*

[1097] *See, e.g.*, Free State Foundation Comments at 61; CAGW Comments at 4; ADTRAN Comments at 24; CALinnovates Comments at 2-3; AT&T Comments at 10; TechFreedom Reply at 101.

[1098] "Net benefits" are the net present value of benefits minus the net present value of costs. When benefits exceed the costs, the result is net positive benefits, and when costs exceed benefits the result is net negative benefits.

[1099] For an explanation of the relationship between cost-benefit analysis and economic efficiency, see Richard O. Zerbe, Jr., and Dwight D. Dively, *Benefit-Cost Analysis in Theory and Practice* at 12-13 (1994).

[1100] Throughout this section, when discussing maintaining broadband Internet access service as a telecommunications service, we mean as implemented by the *Title II Order*, where the Commission forbore from applying some sections of the Act and some Commission rules.

[1101] *Internet Freedom NPRM*, 32 FCC Rcd at 4468, para. 105.

findings made throughout the Order into a cost-benefit framework.[1102]

306. The primary benefits, costs, and transfers attributable to this Order are the changes in the economic welfare of consumers, ISPs, and edge providers that would occur due to our actions. In our analysis of the net benefits of maintaining the Title II classification, the Internet conduct rule, and the bright-line rules, we compare against a state we would expect to exist if we did *not* maintain the classification or a particular rule. As explained in the *Internet Freedom NPRM*, we "recognize that in certain cases repealing or eliminating a rule does not result in a total lack of regulation but instead means that other regulations continue to operate or other regulatory bodies will have authority."[1103] As discussed elsewhere in this Order, when analyzing the net benefits of maintaining the Title II classification, our comparison is to a situation where a Title I regime for broadband Internet access service, and antitrust and consumer protection enforcement, remain in place. Further, given this Order's adoption of a transparency rule, when considering net benefits of the current rules we compare against a state where the transparency rule we adopt is in effect (as well as the antitrust and consumer protection enforcement that exists under a Title I classification). We also recognize that the actions we analyze separately could potentially be interdependent, but we believe a separate consideration of each is a reasonable way to approximate the net benefits.[1104]

307. To conduct the cost-benefit analysis, we first consider the question of maintaining the Title II classification of broadband Internet access service. We next consider approaches to transparency. Then to evaluate the Internet conduct rule and the bright-line rules, we assume that we will not maintain the Title II classification and we will adopt our transparency rule. This approach allows us practically to evaluate the rules in a way that incorporates the decisions on classification and transparency that we have come to in this Order.

308. *Maintaining Title II Classification of Broadband Internet Access Service.* We have found that the *Title II Order* decreased investment and is likely to continue to decrease investment by ISPs.[1105] These decreases in investments are likely to result in less deployment of service to unserved areas and less upgrading of facilities in already served areas.[1106] For consumers, this means some will likely not have access to high-speed services over fixed or mobile networks and some will not experience better service as quickly as they otherwise would under a Title I classification. While the evidence in the record on the effect of Title II is varied in terms of details due to different methodologies, data, etc., we found that the Title II classification did directionally decrease investment by ISPs.[1107]

[1102] We do not recount the analysis underlying each conclusion since that has been presented in the relevant places throughout the Order.

[1103] *Internet Freedom NPRM*, 32 FCC Rcd at 4469, para. 107.

[1104] We believe that attempting to assert the nature of these interdependencies, particularly given the limited record on such matters, would introduce considerable subjectivity while not likely improving the ability of the analysis to guide our decisions. Moreover, we consider additional regulation, for example, adding an additional rule to a baseline package of Title II regulation and another rule (or none) is likely to have greater negative impacts in terms of regulatory uncertainty, and distortion of efficient choices, than the baseline package, while at best having little or no additional impact on the positive impacts (if any) of each element of the baseline package. That is, the interactions increase uncertainty and the unintended side effects of each element, without making each element materially more effective.

[1105] *See supra* Part III.C.1.

[1106] Based on our analysis herein, we reject the argument that "[t]he Commission fails to explain why investment, rather than increases in speed and deployment, are the relevant measures of the success or failure of the current broadband regulatory regime." Public Knowledge Dec. 7 *Ex Parte* at 1.

[1107] Since the *Title II Order* classified broadband Internet access service under Title II and adopted rules simultaneously, it is difficult methodologically to make a clear delineation between the effect of the classification

(continued….)

309. As the *Internet Freedom NPRM* noted, "the networks built with capital investments are only a means to an end . . . the private costs borne by consumers and businesses of maintaining the *status quo* [i.e., Title II classification] result from decreased value derived from using the networks."[1108] Ideally, we would estimate consumers' and businesses' valuations of the service or service improvements foregone caused by Title II classification. Unfortunately, the record before us does not allow for such estimation. We can reasonably conclude, however, that providers expect to recoup their investments over time through revenues generated by employing the networks resulting from the investment. Since these revenues come from consumers and businesses who are willing to pay *at least* their value of the service, the investment foregone due to Title II is a lower bound on the value consumers lose if the FCC maintains the Title II classification. This is a conservative estimate as the social welfare impact of this forgone investment would likely have been positive, because frequently (1) a customer's willingness to pay exceeds what the customer actually pays, and (2) the provider may make an economic profit. We therefore conclude that the private costs of maintaining a Title II classification due to foregone network investment are directionally negative and likely constitute at least several billion dollars annually based on the record.

310. The Commission also asked in the *Internet Freedom NPRM* about additional costs that could result from foregone network investments.[1109] When regulation discourages investment in the network, society is likely to lose some spillover benefits that the purchasers of broadband Internet access do not themselves capture. Such forgone benefits can include network externalities (the network becomes more valuable the more users are on the network, but individual ISPs do not capture all of these, as they are obtained by end users on other ISPs' networks),[1110] and improvements in productivity and innovation that occur because broadband is a general-purpose technology. The record provides little information that could be used to quantify such costs, but it is reasonable to conclude that there are social costs beyond the private costs associated with the foregone investment.[1111]

311. Next, we consider the benefits associated with maintaining the Title II classification. The relevant comparison is what incremental benefit the Title II classification provides over and above the Title I scenario. In the Title I scenario, the FTC has jurisdiction over broadband Internet access service providers. The record does not convince us that Title II classification *per se* provides any benefit over and above Title I classification. We also find above that the record does not provide evidence supporting the conclusion that the Title II classification affects edge investment. To the extent Title II provides a benefit, it appears to do so by serving as a legal basis relied upon to adopt rules. Therefore, in this cost-benefit analysis we conclude the incremental benefits of maintaining the Title II classification are approximately zero.[1112]

312. Finding that the benefits of maintaining the Title II classification are approximately zero,

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and the rules. However, the theoretical underpinnings of our finding about the effect of Title II specifically also support the finding of a negative impact on investment as a result of Title II *per se*. *See supra* paras. 93-98.

[1108] *Internet Freedom NPRM*, 32 FCC Rcd at 4469, para. 110.

[1109] *Id*. at 4470, paras. 111-13.

[1110] *See supra* para. 119.

[1111] *See, e.g.*, Letter from Thomas J. Navin, Counsel to Corning Inc., to Marlene Dortch, Secretary, FCC, WC Docket No. 17-84, Attach. A (filed Oct. 20, 2017), https://ecfsapi.fcc.gov/file/1020823627435/Corning%20Ex%20Parte.pdf (Hal Singer, Ed Naef, Alex King, Economists Incorporated and CMA Strategy Consulting, *Assessing the Impact of Removing Regulatory Barriers on Next Generation Wireless and Wireline Broadband Infrastructure Investment* at 35-45 (June 2017) (discussing the impact of additional investments on spillover effects and economic output).

[1112] To the extent the benefits of maintaining the Title II classification rest in Title II supporting the rules, those benefits are accounted for in our analysis of the rules themselves, below.

coupled with our finding that the private and social costs are positive, we conclude that maintaining the Title II classification would have net negative benefits. Thus, maintaining the Title II classification would decrease overall economic welfare, and our cost-benefit analysis supports the decision to reclassify broadband Internet access service as a Title I service.

313. *Evaluating Transparency Rules.* As discussed already, we find that the benefits of a transparency rule are positive based on the record.[1113] Given our decision to classify broadband Internet access service under Title I, the benefits of a transparency rule are expected to be of considerable magnitude since it is a key element of our approach of relying on enforcement under antitrust and consumer protection law to prevent and remedy harmful behaviors by ISPs. Numerous commenters indicate the benefits of a free and open Internet are large, so to the extent a transparency rule under our Title I approach is important for maintaining a free and open Internet, we can conclude the benefits are positive and considerable. Furthermore, transparency can provide other benefits in terms of consumer welfare. Namely, if transparency helps mitigate economic deadweight loss due to information asymmetry or if it helps consumers better satisfy their preferences in their purchasing decisions, then additional benefits will accrue. We therefore conclude that our transparency approach, as well as the transparency approaches in the *Open Internet Order* and the *Title II Order*, all have positive benefits.

314. The costs of the transparency rules may vary given differences in their implementation. Comparing the transparency approach in the *Open Internet Order* and the *Title II Order*, we conclude the costs were greater for the latter. Based on the record, we determined above that the additional transparency requirements in the *Title II Order* were particularly burdensome.[1114] Although the record is limited on the costs of these transparency rules, the Commission's Paperwork Reduction Act (PRA) filings indicate the *Title II Order* transparency rule increased the burden on the public by thousands of hours per year, costing hundreds of thousands of dollars.[1115] While we do not have specific information on our transparency rule's costs, it is fairly similar to that in the *Open Internet Order*. Therefore, we conclude that a reasonable approximation for the PRA burden associated with our rule is approximately half the preceding burden estimate.[1116] We recognize there are other costs to this requirement not accounted for in the PRA estimate, though the PRA estimate provides a starting point for sizing the costs, particularly as we compare several alternative transparency approaches.

315. Combining our conclusion about the benefits of a transparency rule with our assessments of the costs of the several transparency rules, we conclude that the transparency rule in the *Title II Order* would have the smallest net positive benefit of the three. That is because we do not believe the additional elements of the *Title II Order* transparency regime have significant additional benefits but they do impose significant additional costs.[1117] However, our transparency rule would have a larger net positive benefit than the transparency rule in the *Title II Order*. Therefore, our cost-benefit analysis of the transparency alternatives supports our decision to adopt a transparency rule more limited than the one in the *Title II*

[1113] *Supra* Parts IV.A.2, IV.B.1.

[1114] *See supra* Parts IV.A.2, IV.B.1.

[1115] CenturyLink estimated, between February 2015 and February 2017, 825 employee hours were required annually to meet the enhanced transparency requirements of the *Title II Order*. CenturyLink Declaration of Jeff Glover at 2. AT&T, Verizon, Comcast, Charter, all being considerably larger than CenturyLink, likely each incurred at least another 825 hours, while other large ISPs like Cox, Altice, Frontier conservatively would have also each incurred half as many hours as CenturyLink, for a total of 5,362.5 (= 5 x 825 + 3 x 412.5) hours, or, at a low $25/hour, over $134,000 per year. Because compliance costs do not scale with size, adding in the hours spent by smaller ISPs not exempted from this provision would substantially increase these numbers.

[1116] In the same period, CenturyLink estimated its costs of meeting the *Open Internet Order*'s transparency requirement to be 52.1 percent of its costs of meeting the *Title II Order*'s enhanced requirements. CenturyLink Declaration of Jeff Glover at 2.

[1117] *See supra* Part IV.A.2.

Order.

316. *Maintaining the Internet Conduct Rule.* We have determined elsewhere that the Internet conduct rule has created uncertainty and ultimately deterred innovation and investment. The record does not provide sufficient information for us to estimate the magnitude of this effect. However, we do find that maintaining the Internet conduct rule imposes social costs in terms of increased uncertainty, reduced investment, and reduced innovation.[1118]

317. We also find above that the benefits of the Internet conduct standard are limited if not approximately zero. In this cost-benefit analysis, we consider the incremental benefit of the Internet conduct standard relative to the regulatory environment created by this Order. The regulatory environment created by this Order will have antitrust and consumer protection enforcement in place through the FTC. We find that the Internet conduct standard provides approximately zero additional benefits compared to that baseline.

318. Based on the record available, we conclude that maintaining the Internet conduct standard would impose net negative benefits. The costs of the rule are considerable as the evidence shows that it had large effects on consumers obtaining innovative services (as demonstrated by the zero-rating experiences). The innovations that were delayed or never brought to market would likely have cost many millions or even billions of dollars in lost consumer welfare. At the same time, for the reasons explained already, the benefits of the conduct rule are approximately zero. This leads us to conclude that the Internet conduct standard has a net negative effect on economic welfare, and supports our decision not to maintain the Internet conduct rule.

319. *Maintaining the Ban on Paid Prioritization.* We have determined elsewhere in this Order that the ban on paid prioritization has created uncertainty and reduced ISP investment.[1119] We also find that the ban is likely to prevent certain types of innovative applications from being developed or adopted. The record does not provide sufficient information for us to estimate the magnitude of these effects. However, we do find that maintaining the ban on paid prioritization imposes substantial social costs.

320. We also find above that the benefits of the ban on paid prioritization are limited. In this cost-benefit analysis, we consider the incremental benefit of the ban on paid prioritization relative to the regulatory environment created by this Order. The regulatory environment created by this Order will have antitrust and consumer protection enforcement in place. So we must ask what the ban on paid prioritization provides in additional benefits when compared to that baseline. We concluded that transparency combined with antitrust and consumer enforcement at the FTC will be able to address the vast majority of harms the ban on paid prioritization is intended to prevent. To the extent there are harms not well addressed by this enforcement, we would expect those cases to be infrequent and involve relatively small amounts of harm, though the record does not allow us to estimate this magnitude.[1120] The record therefore supports a finding of small to zero benefits.

321. Based on the record available, we conclude that maintaining the ban on paid prioritization would impose net negative benefits. The record shows that in some cases innovative services and business models would benefit from paid prioritization.[1121] At the same time, for the reasons explained already, the benefits of maintaining the ban are small or zero. We therefore conclude that the ban on paid

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[1118] *See supra* Part IV.B.2.a.

[1119] *See supra* Part IV.B.2.b.

[1120] Antitrust law, in combination with the transparency rule we adopt, is particularly well-suited to addressing any potential or actual anticompetitive harms that may arise from paid prioritization arrangements. While antitrust law does not address harms that may arise from the legal use of market power, we have found that such market power is limited, and ISPs also have countervailing incentives to keep edge provider output high and keep subscribers on the network. *See supra* Part IV.B.2.b.

[1121] *See supra* Part IV.B.2.b.

prioritization has a net negative effect on economic welfare. This conclusion supports our decision to not maintain the ban on paid prioritization.

322. *Maintaining the Bans on Blocking and Throttling.* We find that the costs of these bans are likely small. This is supported by the fact that ISPs voluntarily have chosen in some cases to commit to not blocking or throttling.[1122] However, we also recognize that these rules may create some compliance costs nonetheless. For example, when considering new approaches to managing network traffic, an ISP must apply due diligence in evaluating whether the practice might be perceived as running afoul of the rules. As network management becomes increasingly complex,[1123] the compliance costs of these rules could increase.

323. Having adopted a transparency rule, we find the benefits of bans on blocking and throttling are approximately zero since the transparency rule will allow antitrust and consumer protection law, coupled with consumer expectations and ISP incentives, to mitigate potential harms. That is, we have determined that replacing the prohibitions on blocking and throttling with a transparency rule implements a lower-cost method of ensuring that threats to Internet openness are exposed and deterred by market forces, public opprobrium, and enforcement of the consumer protection laws.[1124] We conclude therefore that maintaining the bans on blocking and throttling has a small net negative benefit, compared to the new regulatory environment we create (i.e. Title I classification and our transparency rule).

VI. ORDER

A. Denial of INCOMPAS Petition to Modify Protective Orders

324. INCOMPAS requests that we modify the protective orders in four recent major transaction proceedings involving Internet service providers to allow confidential materials submitted in those dockets to be used in this proceeding.[1125] INCOMPAS argues that the materials "are necessary to understanding and fully analyzing incumbent broadband providers' ability and incentives to harm edge providers."[1126] The motion is opposed by the three companies whose materials would be most affected—Comcast, Charter and AT&T—as well as by Verizon.[1127] For the reasons set forth below, after carefully "balancing . . . the public and private interests involved,"[1128] we deny INCOMPAS's request.

325. The Commission's protective orders limit parties' use of the materials obtained under the protective order solely to "the preparation and conduct" of that particular proceeding, and expressly

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[1122] *See supra* Part IV.B.2.c.

[1123] *See supra* para. 254; *see also* Nokia Comments at 17-18 (asserting bright line no-throttling rule harmed development of innovative network management programs).

[1124] *See supra* paras. 263-264.

[1125] Motion of INCOMPAS to Modify Protective Orders, WC Docket No. 17-108 (filed July 17, 2017) (INCOMPAS Motion); *see also* Support of Motion of INCOMPAS to Modify Protective Orders, filed by Public Knowledge, WC Docket No. 17-108 (filed July 31, 2017). The four proceedings involve Charter Communications' acquisition of Time Warner Cable, Inc. and Bright House Networks, MB Docket No. 15-149; Comcast Corp.'s proposed acquisition of Time Warner Cable, Inc., MB Docket No. 14-57; AT&T Inc.'s acquisition of DirecTV, MB Docket No. 14-90; and Comcast Corp.'s acquisition of NBC Universal, Inc., MB Docket No. 10-56.

[1126] INCOMPAS Motion at 11.

[1127] Comcast Corp.'s Opposition to Motion of INCOMPAS to Modify Protective Orders, WC Docket No. 17-108 (filed July 27, 2017) (Comcast Opposition); Opposition to Motion of INCOMPAS to Modify Protective Orders, filed by Charter Communications, Inc., WC Docket No. 17-108 (filed July 27, 1017) (Charter Opposition); Opposition of AT&T Services Inc. to Motion of INCOMPAS to Modify Protective Orders, WC Docket No. 17-108 (filed July 27, 2017) (AT&T Opposition to INCOMPAS); Verizon's Opposition to INCOMPAS's Motion to Modify Protective Orders, WC Docket No. 17-108 (filed Aug. 8, 2017) (Verizon Opposition).

[1128] *See FCC v. Schreiber*, 381 U.S. 279, 289-90 (1965).

prohibit the materials being used "for any other purpose, including . . . in any other administrative, regulatory or judicial proceedings."[1129] The terms of the relevant protective orders therefore prohibit INCOMPAS from using the confidential materials it obtained in those prior dockets in the current proceeding. Further, parties reasonably expect that the information they submit pursuant to the strictures of a protective order will be used in accordance with the terms of that order and that the order's explicit prohibitions will not be changed years later.[1130]

326. Before discussing the substance of INCOMPAS's request, we note that, as a formal matter, the Commission does not modify protective orders to allow materials to be used in a different proceeding. Rather, where we find that the public interest is served by submitting certain materials into a docket, we do so, subject to a protective order specific to that proceeding if the material is confidential.[1131] That is true whether the materials have been submitted in prior proceedings or not. The question before us, then, is whether we will require the relevant parties to submit into this docket the presumptively confidential information INCOMPAS has identified.

327. The Commission is not required to enter into the record and review every document that a party to a proceeding deems relevant, especially where, as here, those documents may number in the tens of thousands.[1132] Nor, as a general matter, does the Commission allow for discovery by parties—which is essentially what INCOMPAS seeks here—except in adjudications that have been set for hearing.[1133] The Commission has broad discretion in how to manage its own proceedings,[1134] and we find several problems with requiring the materials INCOMPAS seeks to be submitted into this rulemaking docket.

328. First, much of the material INCOMPAS seeks is now several years old and INCOMPAS has offered little demonstration of its relevance to this proceeding. For example, Comcast's ability to discriminate against online video providers in 2009 and 2010 shines little light on its ability to do so now.[1135] Also, as the opponents argue, many of the confidential materials cited by the Commission in its

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[1129] *See, e.g.*, *Applications of Charter Communications, Inc. at al. for Consent to Assign or Transfer Control of Licenses and Authorizations,* Order, 30 FCC Rcd 10360, 10392, para. 11 (2015).

[1130] That is not to imply, however, that the Commission cannot request the submission of information in a proceeding simply because it has been provided pursuant to a protective order in another proceeding.

[1131] *See Applications of Charter Communications, Inc. at al. for Consent to Assign or Transfer Control of Licenses and Authorizations*, Order, 30 FCC Rcd 10360, 10368, para 16 n.56 (2015); *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers*, Order and Protective Order, 30 FCC Rcd 13680, 13683-85 paras. 10, 13 & n.29 (WCB 2015). Depending on the material, the Commission either makes new requests of the owners of the materials or, where there are too many owners to make that course practical, issues a public notice stating that the material will be placed in the record of the new proceeding and providing the owners an opportunity to object.

[1132] *SBC Communications, Inc. v. FCC*, 56 F.3d 1484, 1496 (D.C. Cir. 1995) (citing *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 549 (1978)) (upholding Commission determination not to include in the record additional HSR documents submitted to DOJ in connection with same transaction).

[1133] *See* 47 CFR § 1.311; *WETM-TV, Inc.*, Memorandum Opinion and Order, 88 FCC 2d 1399, 1404, para. 13 (1982). Indeed, even in formal complaint proceedings, discovery is at the discretion of the Commission. *See Marpin Telecoms and Broadcasting Company Limited v. Cable & Wireless, Inc.*, Order, 18 FCC Rcd 508, 510-12, paras. 8-9 (2003).

[1134] 47 U.S.C. § 154(j); *Marpin Telecoms and Broadcasting Company Limited v. Cable & Wireless, Inc.*, 18 FCC Rcd at 511, para. 9; *see Hi-Tech Furnace Sys. Inc. v. FCC*, 224 F.3d 781, 789 (D.C. Cir. 2000). *See generally FCC v. Schreiber*, 381 U.S. at 289-90.

[1135] Moreover, the conditions that the Commission attached to the Comcast/NBCU transaction are set to expire on their own terms in January 2018. *Applications of Comcast Corporation, General Electric Company and NBC*

(continued….)

prior transaction decisions were cited as part of a larger group of mostly publicly available information.[1136] Having the competitively sensitive information from those transactions in this record would therefore not significantly add to the Commission's understanding of the issues, especially since the participants in the current proceeding and the Commission already have available the Commission's prior conclusions and reasoning, as well as the underlying public information.

329. Second, INCOMPAS asks for information only from the few industry participants who happen to have had large transactions before the Commission. But where the Commission has sought information in large rulemaking proceedings, it sought information from the entire industry, not just from a select few participants.[1137] Particularly given that there are thousands of ISPs doing business in the United States,[1138] INCOMPAS does not address how a quite incomplete picture of industry practices could meaningfully improve the Commission's analysis.[1139]

330. Third, granting the request would pose several administrative difficulties. It is unclear how much of the material INCOMPAS seeks is still in the possession of the parties: the relevant portions of the proceedings are finished, and many of the materials may have been destroyed. And what is available at the Commission would be difficult and costly to produce.[1140] Making the information available to others also would be administratively difficult. For example, in the recent Business Data Services proceeding, the Commission made the competitively sensitive data available for review only through a secure data enclave, a process which took significant time and resources to establish.[1141] And in most Commission proceedings, the parties who own the confidential information are required to provide that material directly to persons who seek to review it pursuant to terms outlined in the applicable protective order. Here, in contrast, it is likely that the Commission itself would have to make the confidential information available, further depleting scarce Commission resources.

331. Finally, as noted above, the materials INCOMPAS seeks were provided pursuant to express assurances against their use in future proceedings.

332. INCOMPAS cites two examples in which the Commission staff placed into the record competitively sensitive materials originally submitted in another docket.[1142] We find both inapposite. As

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Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licenses, MB Docket No. 10-56, Memorandum Opinion and Order, 26 FCC Rcd 4238, 4381, Appx. A (2011) (*Comcast/NBCU Order*).

[1136] *See, e.g.*, AT&T Opposition to INCOMPAS at 13; Comcast Opposition at 6, n.17.

[1137] *See infra* para. 334 (noting that the transaction proceedings INCOMPAS focuses on involved some of the nation's largest broadband providers). Transaction review is an adjudicatory matter, involving the entities engaging in the transaction—not the entire industry or marketplace.

[1138] Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Service Report at 27, Fig. 30 (Apr. 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344499A1.pdf.

[1139] While the applicants in these transactions have a large percentage of the nation's Internet access subscribers, they are nonetheless a small percentage of the number of providers.

[1140] Most of the materials INCOMPAS seeks were provided to the FCC as part of a large electronic document production, delivered on computer hard drives. The FCC would need to obtain proper software to view the materials, re-load the production, and then review the tens of thousands of documents to select the relevant ones. This would cost the agency significant time and funding. Further, not all documents are available in digital format, which would create additional administrative burdens to first organize and digitize the relevant materials.

[1141] *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Order and Data Collection Protective Order, 29 FCC Rcd 11657 (WCB 2014).

[1142] *See* INCOMPAS Motion at 12.

an initial matter, we note that the Commission is not bound by its staff's prior decisions.[1143] The first example INCOMPAS cites involved a series of spectrum license transfers between wireless telecommunications companies where the Commission added confidential data to the docket under a new protective order. When evaluating transactions such as these, the Commission regularly uses subscriber data derived from regular periodic confidential filings made by all telecommunications companies to determine market shares. In such transactions, this use of subscriber data is often the only way to calculate market share, which is a critical element to analyzing the potential competitive harms of the proposed transaction. Balancing that need against the potential competitive harm to providers, we have determined that allowing that material to be reviewed pursuant to a protective order best serves the public interest. For the reasons expressed above, we do not reach the same conclusions with respect to the materials here.

333. INCOMPAS also cites the recent investigation of certain business data services tariffs, in which the Commission placed the record of the contemporaneous business data services rulemaking proceeding into the docket of the tariff investigations. As the opponents note, the tariff investigation was not only related to the rulemaking proceeding, it actually was determined by the staff to be "an outgrowth" of that proceeding.[1144] Further, there was no Commission decision in the rulemaking proceeding on which the participants in the tariff proceeding could rely; the proceeding was still ongoing. All of the participants in the tariff proceeding, moreover, were participating in the rulemaking proceeding. Here, by contrast, the current rulemaking is not related to the prior transactions; the parties may rely on prior written Commission decisions; and literally millions more comments have been submitted in this rulemaking than in the prior transaction proceedings. Finally, we note that none of the parties that owned the confidential information in the Business Data Services rulemaking proceeding raised confidentiality concerns with respect to that information being placed into the tariff investigation docket.[1145] Here, they do.

334. Even absent the legal and administrative barriers discussed above, the substance of the past transaction orders compels us to deny INCOMPAS' motion. When, as it has in the past, the Commission determines a specific transaction involving certain large broadband providers is likely to create competitive or other public interest harm, the conditions imposed are applicable *only* to those entities engaging in the transaction. Those proceedings involved some of the nation's largest broadband providers, and the Commission's conclusions were based on the specific circumstances involved. This is because transaction review is an adjudicatory matter, involving the motives, plans, and capabilities of the entities engaging in the transaction—not the entire industry or marketplace.[1146] The targeted and flexible approach the Commission used to ameliorate the potential harms it found in those transactions is not transferable to a permanent, one-size-fits-all approach in this rulemaking applicable to hundreds of ISPs.

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[1143] *See, e.g.*, *SNR Wireless LicenseCo, LLC v. FCC*, 868 F.3d 1021, 1037 (D.C. Cir. 2017).

[1144] *Investigation of Certain Price Cap Local Exchange Carrier Business Data Service Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers*, Order and Protective Orders, 30 FCC Rcd at 13683, para. 9.

[1145] While Level 3 Communications objected to the information from the rulemaking proceeding being placed into the tariff investigation docket, it did not raise confidentiality concerns. Instead, Level 3 argued that the information was unnecessary to the resolution of the tariff investigation proceeding and that adding it to the record would increase the costs and burdens on the other parties and risk delaying the proceeding's resolution. *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers*, WC Docket Nos. 15-247, 05-25, Opposition of Level 3 to Modify Protective Orders (Nov. 4, 2015).

[1146] Indeed, transaction reviews specifically do not address issues that are not transaction-specific but are industry-wide. *See, e.g., Applications of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC and Cox TMI, LLC for Consent to Assign AWS-1 Licenses*, WT Docket No. 12-4, Memorandum Opinion and Order and Declaratory Ruling, 27 FCC Rcd 10698, 10732-34, paras. 91-94 (2013)*; Application of AT&T Inc. and Qualcomm Incorporated for Consent to Assign Licenses and Authorizations*, Order, 26 FCC Rcd 17589, 17622, para. 79 (2011).

335. Further, in those limited instances in which the Commission found conduct remedies necessary, it almost always applied them on a temporary basis, in recognition that markets change over time. That is true even more so in industries that are characterized by rapidly changing technologies.[1147] Similarly, the Commission often has provided that it will "consider a petition for modification of this condition if it can be demonstrated that there has been a material change in circumstance or the condition has proven unduly burdensome, rendering the condition no longer necessary in the public interest,"[1148] and has acted accordingly.[1149] None of this would be the case with respect to the regulations that some commenters urge us to adopt in this rulemaking.[1150]

336. INCOMPAS argues that "[l]ooking to the past is the standard way for administrative agencies to make predictive judgments."[1151] However, the analysis supporting our decision to re-classify broadband Internet access service as an information service is quite different from the analysis the Commission employs when conducting a transaction review. In this rulemaking, we are not considering whether, as a result of a transfer of a Commission license, a licensee is likely to gain market power, allowing it to take anticompetitive actions that it otherwise could not. Instead, we are reasonably considering the long-term costs and benefits of Title II and other *ex ante* regulation in an increasingly dynamic market. As such, we choose a conservative and administrable approach to formulating a light-touch regulatory framework—which is appropriate in a rulemaking.

337. In addition to rejecting the INCOMPAS petition on the merits, we find that the petition is procedurally flawed. Although some of the companies that objected to INCOMPAS's request were the applicants in the proceedings from which INCOMPAS seeks confidential information, they are not the only owners of confidential information submitted in those dockets.[1152] INCOMPAS did not file its

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[1147] *See, e.g.*, *Applications of AT&T, Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90, Memorandum Opinion and Order, 30 FCC Rcd 9131, 9301, Appx. B (2015) (*AT&T/DIRECTV Order*) (only requiring conditions for four years following the close of the transaction); *Comcast/NBCU Order*, 26 FCC Rcd 4238, 4312, para. 178 (2011) (explaining that the Commission placed a seven-year time limit on the condition for affiliate programming agreements because "the video marketplace is changing, and in light of that evolution, [the Commission is] reluctant to impose indefinite terms for conditions based upon the contractual provisions with fixed terms negotiated by the parties"); *Charter/TWC Order*, 31 FCC Rcd at 6370, para. 86 (limiting condition on data caps to seven years because period of time would "allow the edge provider market room to become more mature and better positioned to withstand attempts by New Charter to impose data caps and UBP at levels indeed [sic.] to blunt their competitiveness. Seven years may also provide the high-speed BIAS provider market sufficient time to develop further with additional investments in fiber from established wireline BIAS providers, Wireless 5G technology, use of smartgrid fiber for broadband, additional overbuilding, and other potential competitors to traditional wired BIAS providers.").

[1148] *See Comcast/NBCU Order*, 26 FCC Rcd at 4381, Appendix A, n.11; *Applications for Consent to the Assignment and/or Transfer of Control of Licenses, Adelphia Communications Corp., Assignors to Time Warner Cable, Inc. et al.*, MB Docket No. 05-192, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8277, para. 164 (2006) (*Adelphia Order*) (citing *General Motors Corporation and Hughes Electronics Corporation, Transferors, And The News Corporation Limited, Transferee, For Authority to Transfer Control*, MB Docket No. 03-124, Memorandum Opinion and Order, 19 FCC Rcd 473, 555, para. 179 (2004)).

[1149] *See*, *e.g.*, *Application for Consent to the Transfer of Control of Licenses and Section 214 Authorization by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, Order, 27 FCC Rcd 638 (2012) (terminating several conditions as unnecessary after corporate sale); *General Motors Corporation, Hughes Electronics Crop., Transferors and The News Corporation Limited, Transferee*, Memorandum Opinion and Order, 24 FCC Rcd 8674 (2009) (terminating some conditions due to a material change in circumstances).

[1150] *See*, *e.g.*, INCOMPAS Comments at 69 (arguing for *ex ante* rules, including the general conduct rule).

[1151] INCOMPAS Response at 5.

[1152] Some of the confidential information submitted in these dockets involved not just the applicants but also third-parties. Those third-parties have a right to object to the release of their confidential information. *See Applications*

(continued….)

request in those dockets—which are long dormant—and others whose confidential information would be disclosed if we were to grant INCOMPAS's request have not been notified of the request to have the opportunity to object. That would need to occur before any of their information could be made available, even pursuant to a protective order.[1153]

338. Taking into account and sensibly balancing the factors discussed above, we find that the public interest would not be served by requiring the submission into the docket of the current proceeding the presumptively confidential information INCOMPAS seeks. We therefore deny INCOMPAS's request.

B. Denial of NHMC Motion Regarding Informal Consumer Complaints

339. The National Hispanic Media Coalition (NHMC) requests that we incorporate in the record of this proceeding the informal complaint materials released as part of NHMC's Freedom of Information Act (FOIA) request and establish a new pleading cycle for public comment on those materials.[1154] NHMC argues that the materials "are directly relevant to the [NPRM's] questions regarding the effectiveness of the [*Title II Order*]" and that if we deny NHMC's request, "any decision in this proceeding would be based on an insufficient and fundamentally flawed record."[1155] The motion is opposed by several parties who argue that the informal complaint materials are not relevant to this proceeding, and that the motion "appears to be . . . aimed [] at prolonging this proceeding unnecessarily."[1156] For the reasons set forth below, we deny NHMC's request.

340. In responding to NHMC's underlying FOIA requests, we produced nearly 70,000 pages of records responsive to the requests.[1157] The documents we provided to NHMC included informal consumer complaints filed with the Consumer and Governmental Affairs Bureau, data relating to the complaints, responses to the informal complaints from the carrier involved in a specific complaint—all filed by the consumer[1158] under the category of Open Internet/Net Neutrality—and consumer complaint

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of Charter Communications, Inc. at al. for Consent to Assign or Transfer Control of Licenses and Authorizations, Order, 30 FCC Rcd at 10374, para. 26.

[1153] *Cf. Applications of Cricket License Company, LLC, et al., Leap Wireless International, Inc., and AT&T Inc. for Consent To Transfer Control of Authorizations*, Public Notice, 28 FCC Rcd 12821 (WTB 2013) (providing notice of intent to place confidential information into the record of a separate proceeding and providing affected parties an opportunity to object); *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers,* Motion of AT&T Inc., Verizon, CenturyLink, and Frontier to Modify Protective Orders, WC Docket Nos. 15-247, 05-25 (filed Oct. 23, 2015) (motion filed in docket in which confidential materials were originally submitted and in docket into which parties sought confidential materials to be submitted).

[1154] Joint Motion To Make Informal Open Internet Complaint Documents Part of the Record and To Set a Pleading Cycle for Comment on Them, WC Docket No. 17-108 (filed Sept. 18, 2017) (NHMC Joint Motion).

[1155] NHMC Joint Motion at 10.

[1156] NCTA and USTelecom, Opposition to Motion Regarding Informal Complaints, WC Docket No. 17-108, at 1-2 (filed Sept. 28, 2017) (NCTA and USTelecom Opposition); *see also* Letter from Henry Hultquist, Vice President Regulatory Affairs, AT&T to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108, at 6 (Sept. 27, 2017) (AT&T Opposition to NHMC).

[1157] A team of thirty-two employees from across the Commission spent a total of 1,017 hours redacting consumers' personal and sensitive material on the pages produced in accordance with the exemptions under FOIA. The Commission undertook this large document processing effort in spite of the fact that "the voluminous amount of separate and distinct records" requested by NHMC constituted "unusual circumstances" under the FOIA, which would have allowed the Commission an opportunity to significantly narrow the scope of the FOIA request. *See* 5 U.S.C. § 552(a)(6)(B).

[1158] Typically, when a consumer files a complaint, the consumer selects the issue that is the subject of his or her complaint or an agent from the FCC Call Center will select a topic based on the consumer's description of the issue.

correspondence with the Open Internet Ombudsperson.[1159] We provided this large quantity of documents to NHMC on a rolling basis and made all of the documents available to the public in our FOIA Electronic Reading Room.[1160]

341. Under Commission rules, and as noted by opponents to the motion, "NHMC is free to put into the record whatever it believes to be relevant via *ex parte* letters."[1161] NHMC began receiving the documents it claims are relevant to the proceeding on June 20, 2017.[1162] During the following months, NHMC engaged with Commission staff to discuss the consumer complaint documents.[1163] NHMC also conducted an Expert Analysis of the consumer complaint documents and submitted the analysis along with the complaints it found relevant in the record, in addition to submitting the full universe of consumer complaints it received under the FOIA request into the record on December 1—nearly three months after the Commission produced them all.[1164] Thus, we remain unpersuaded that NHMC requires additional time to review the documents and instead agree with commenters that NHMC has raised "the mere existence of these complaints as a pretext for delay."[1165]

342. The *Internet Freedom NPRM* sought comment on consumer harm in a variety of contexts and, in response, received over 22 million comments discussing consumers' view of the *Title II Order*, including any harm that may or may not have occurred under its rules. After routinely reviewing the

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[1159] The final production of documents was the result of negotiations between representatives of the Commission's Consumer and Governmental Affairs Bureau and Office of General Counsel and NHMC to narrow the scope of the request following NHMC's initial unreasonably burdensome FOIA requests. The ultimate FOIA production was based on NHMC's July 27, 2017 letter to the Commission accepting the Commission's offer to provide the following documents: "1,500 emails from ombudsperson(s);" "more than 47,000 consumer complaints;" "the spreadsheet with data for the more than 47,000 consumer complaints;" and "the 308 carrier responses that relate to the initial production of 1,000 consumer complaints." *See* NHMC Joint Motion at Attachments 8, 9.

[1160] Response to NHMC FOIA Request, FCC.gov, https://www.fcc.gov/response-nhmc-foia-request (last updated Sept. 14, 2017); 5 U.S.C. § 552(a)(2)(D)(ii)(I) (permitting the agency to publicly disclose documents in response to a FOIA request that "the agency determines have become or are likely to become the subject of subsequent requests for substantially the same records"). NHMC filed an Application for Review of the response to its FOIA request. *See* Application for Review of Initial Action re: NHMC FOIA Requests (filed Nov. 14, 2017) (NHMC AFR).

[1161] NCTA and USTelecom Opposition at 5.

[1162] As noted by NHMC, "CGB's first formal response to NHMC's FOIA requests occurred on June 20, 2017." NHMC Joint Motion at 4. This first sample was followed by the full set of documents, produced on a rolling basis on August 24, August 29, September 5, and September 14, 2017.

[1163] *See*, *e.g.*, Joint Reply of National Hispanic Media Coalition et al., WC Docket No. 17-108 (Oct. 5, 2017) (NHMC Joint Motion); Letter from Francella Ochillo, Policy Counsel, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (Oct. 13, 2017); Letter from Francella Ochillo, Policy Counsel, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (Oct. 23, 2017); Letter from Francella Ochillo, Policy Counsel, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (Nov. 1, 2017).

[1164] *See* Letter from Carmen Scurato, Director, Policy and Legal Affairs, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (Nov. 20, 2017) (NHMC Expert Analysis); Letter from Carmen Scurato, Director, Policy and Legal Affairs, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (Dec. 1, 2017) (Dec. 1 NHMC *Ex Parte*); Letter from Carmen Scurato, Director, Policy and Legal Affairs, NHMC, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (Dec. 7, 2017). Consistent with the Commission's standard practices applicable to all filers, electronic materials submitted by outside parties other than through the Electronic Comment Filing System (ECFS) portal cannot be uploaded into ECFS; however, the materials are made available for in-person review at the Commission. Also, as noted by NHMC, the materials that NHMC submitted via USB drive could have also been uploaded in the ECFS portal via "thirteen separate submissions to ECFS." Dec. 1 NHMC *Ex Parte* at 2.

[1165] AT&T Opposition to NHMC at 6.

consumer complaints over the past two years,[1166] and conducting a robust review of the voluminous record in this proceeding, we agree with opponents to the motion that "it is exceedingly unlikely that these informal complaints identify any net neutrality 'problem' that [advocates] have somehow overlooked in their many massive submissions in this docket."[1167] The Commission takes consumer complaints seriously and finds them valuable in informing us about trends in the marketplace, but we reiterate that they are informal complaints that, in most instances, have not been verified.[1168] Further, the overwhelming majority of these informal complaints do not allege conduct implicating the Open Internet rules.[1169] Of the complaints that do discuss ISPs, they often allege frustration with a person or entity, but do not allege wrongdoing under the Open Internet rules. The consumer complaints NHMC submitted in the record as part of the Expert Analysis further support this point.[1170] Further, we are not required to resolve all of these informal complaints before proceeding with a rulemaking.[1171] Since we do not rely on these informal complaints as the basis for the decisions we make today, we do not have an obligation to incorporate them into the record.[1172]

343. We are convinced that we have a full and complete record on which to base our determination today without incorporating the materials requested by NHMC. Further, because the record remained open for over three months after the complete production of documents under NHMC FOIA's request, and NHMC filed an analysis the materials it deemed relevant in the record, we believe that NHMC had ample opportunity to "meaningfully review the informal complaint materials and provide comment."[1173]

VII. PROCEDURAL MATTERS

A. The Administrative Record

344. In reviewing the record in this rulemaking, the Commission complied with its obligations

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[1166] *See supra* para. 299 (noting that the Consumer and Governmental Affairs Bureau and the Enforcement Bureau have engaged in an ongoing review of consumer complaints submitted to the Ombudsperson and the Commission's Consumer Complaint Center since the rules from the *Title II Order* became effective in June 2015).

[1167] Letter from Henry Hultquist, Vice President Regulatory Affairs, AT&T, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108, at 6 (Sept. 27, 2017).

[1168] *See supra* para. 299 (noting that while the Commission analyzes informal consumer complaints, it does not expend its limited resources investigating each complaint it receives).

[1169] *See, e.g.*, NCTA and USTelecom Opposition at 3; AT&T Opposition to NHMC at 6.

[1170] The sample of complaints attached by NHMC discuss a wide range of issues beyond the scope of the *Title II Order*'s conduct rules, including concerns about "where has Google been keeping all innovative ideas," to "basically no technical support" to "[m]onthly fee increases several times a year" to "I once tried to start a chat at the beginning of the workday, and had not been connected to a customer service agent 8-hours later." *See* NHMC Expert Analysis at 40-71.

[1171] *See, e.g.*, *FCC v. Schreiber*, 381 U.S. 279, 289 (1965) (holding that Section 4(j) of the Communications Act "empowers the Federal Communications Commission to 'conduct its proceedings in such manner as will best conduce to the proper dispatch of business and to the ends of justice'").

[1172] *See, e.g.*, *American Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 237 (D.C. Cir. 2008) (finding "studies upon which an agency relies in promulgating a rule must be made available during the rulemaking in order to afford interested persons meaningful notice and an opportunity for comment"); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 393 (D.C. Cir. 1973) (finding that "[i]t is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, [to a] critical degree, is known only to the agency").

[1173] NHMC Joint Response at 5; NHMC Expert Analysis.

under the Administrative Procedure Act (APA),[1174] including the obligation to consider all "relevant matter" received,[1175] to adequately consider "important aspect[s] of the problem,"[1176] and to "reasonably respond to those comments that raise significant problems."[1177] Consistent with these obligations, the Commission focused its review of the record on the submitted comments that bear substantively on the legal and public policy consequences of the actions we take today.[1178] Thus, our decision to restore Internet freedom did not rely on comments devoid of substance, or the thousands of identical or nearly-identical non-substantive comments that simply convey support or opposition to the proposals in the *Internet Freedom NPRM*.

345. Because we have complied with our obligations under the APA, we reject calls to delay adoption of this Order out of concerns that certain non-substantive comments (on which the Commission did not rely) may have been submitted under multiple different names or allegedly "fake" names.[1179] The Commission is under no legal obligation to adopt any "procedural devices" beyond what the APA requires, such as identity-verification procedures.[1180] In addition, the Commission has previously decided not to apply its internal rules regarding false statements in the rulemaking context because we do not want "to hinder full and robust public participation in such policymaking proceedings by encouraging collateral wrangling over the truthfulness of the parties' statements."[1181] To the extent that members of the public are concerned about the presence in the record of identical or nearly-identical non-substantive comments that simply convey support or opposition to the proposals in the *Internet Freedom NPRM*, those comments in no way impeded the Commission's ability to identify or respond to material issues in the record.[1182] Indeed, the Order demonstrates the Commission's deep engagement with the substantive legal

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[1174] 5 U.S.C. § 553.

[1175] *In re FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014), *quoting Vermont Public Service Board v. FCC*, 661 F.3d 54, 63 (D.C. Cir. 2011). The court there refused to credit a three-sentence comment with no supporting evidence. *See also North Carolina v. FAA*, 957 F.2d 1125, 1135 (4th Cir. 1992) (noting an agency "need not respond to every comment").

[1176] *Motor Veh. Mfrs. Ass'n v. State Farm Ins.*, 463 U.S. 29, 43 (1983).

[1177] *North Carolina v. FAA*, 957 F.2d at 1135; *see also Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 553 (1978) ("[C]omments must be significant enough to step over a threshold requirement of materiality before any lack of consideration becomes of concern."); *National Ass'n of Manufacturers v. EPA*, 650 F.3d 921 (D.C. Cir. 2014) (noting an agency needs to address only "the more significant comments").

[1178] We note, for example, that it appears that 7.5 million identical one-sentence comments were submitted from about 45,000 unique e-mail addresses, all generated by a single fake e-mail generator website. Moreover, we received over 400,000 comments supporting Internet regulation that purported to be from the same mailing address in Russia.

[1179] *See, e.g.*, Brian Fung, *FCC net neutrality process 'corrupted' by fake comments and vanishing consumer complaints, officials say*, Washington Post (Nov. 24, 2017), https://www.washingtonpost.com/news/the-switch/wp/2017/11/24/fcc-net-neutrality-process-corrupted-by-fake-comments-and-vanishing-consumer-complaints-officials-say/.

[1180] *Vermont Yankee*, 435 U.S. at 548.

[1181] *Amendment of Section 1.17 of the Commission's Rules Concerning Truthful Statements to Commission*, GN Docket No. 02-37, Report and Order, 18 FCC Rcd 4016, 4021-22, para. 13 (2003); 47 CFR § 1.17.

[1182] To help ensure that the Commission complied with the foregoing APA obligations, the Commission devoted substantial resources to a review and evaluation of the content of the approximately 23 million express comments filed in this proceeding, which are shorter submissions that are made directly into a web form and do not require supporting file attachments. Staff individually analyzed distinct form comments and standard or unique comments for substantive issues, and developed a systematic process for review of the non-form, non-standard comments, consistent with the recommendations of the Administrative Conference of the United States. *Administrative Conference Recommendation 2011-1, Legal Considerations in e-Rulemaking*, Administrative Conference of the United States at 4 (June 16, 2011), available at

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and public policy questions presented in this proceeding.

B. Final Regulatory Flexibility Analysis

346. As required by the Regulatory Flexibility Act (RFA),[1183] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Restoring Internet Freedom NPRM*.[1184] The Commission sought written public comment on the possible significant economic impact on small entities regarding the proposals addressed in the *Internet Freedom NPRM*, including comments on the IRFA. Pursuant to the RFA, a Final Regulatory Flexibility Analysis is set forth in Appendix B.

C. Paperwork Reduction Act Analysis

347. This document contains new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other federal agencies are invited to comment on the new information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

348. In this present document, we require any person providing broadband Internet access service to publicly disclose accurate information regarding the network management practices, performance, and commercial terms of their broadband Internet access services sufficient to enable consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings. We have assessed the effects of this rule and find that any burden on small businesses will be minimal because (1) the rule gives ISPs flexibility in how to implement the disclosure rule, (2) the rule gives providers adequate time to develop cost-effective methods of compliance, and (3) the rule eliminates the additional reporting obligations adopted in the *Title II Order*.

D. Congressional Review Act

349. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

E. Data Quality Act

350. The Commission certifies that it has complied with the Office of Management and Budget Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. 2664 (2005), and the Data Quality Act, Pub. L. No. 106-554 (2001), codified at 44 U.S.C. § 3516 note, with regard to its reliance on influential scientific information in the Declaratory Ruling, Report and Order, and Order in WC Docket No. 17-108.[1185]

F. Accessible Formats

351. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental

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https://www.acus.gov/sites/default/files/documents/Recommendation-2011-1-Legal-Considerations-in-e-Rulemaking.pdf.

[1183] *See* 5 U.S.C. § 603.

[1184] *Internet Freedom NPRM*, Appx. B.

[1185] *See* Letter from Wireline Competition Bureau, FCC, to Marlene Dortch, Secretary, FCC, GN Docket No. 09-191, WC Docket No. 07-52 (filed Dec. 13, 2010).

Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty). Contact the FCC to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CARTS, *etc*.) by e-mail: FCC504@fcc.gov; phone: (202) 418-0530 (voice), (202) 418-0432 (TTY).

VIII. ORDERING CLAUSES

352. Accordingly, IT IS ORDERED that, pursuant to sections 3, 4, 201(b), 230, 231, 257, 303, 332, 403, 501, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 153, 154, 201(b), 230, 231, 257, 303, 332, 403, 501, 503, this Declaratory Ruling, Report and Order, and Order IS ADOPTED.

353. IT IS FURTHER ORDERED that parts 1, 8, and 20 of the Commission's rules ARE AMENDED as set forth in Appendix A.

354. IT IS FURTHER ORDERED that this Declaratory Ruling, Report and Order, and Order, including those amendments which contain new or modified information collection requirements that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act WILL BECOME EFFECTIVE upon the effective date announced when the Commission publishes a notice in the Federal Register announcing such OMB approval and the effective date. It is our intention in adopting the foregoing Declaratory Ruling and these rule changes that, if any provision of the Declaratory Ruling or the rules, or the application thereof to any person or circumstance, is held to be unlawful, the remaining portions of such Declaratory Ruling and the rules not deemed unlawful, and the application of such Declaratory Ruling and the rules to other person or circumstances, shall remain in effect to the fullest extent permitted by law.

355. IT IS FURTHER ORDERED that the INCOMPAS Petition to Modify Protective Orders is DENIED.

356. IT IS FURTHER ORDERED that the National Hispanic Media Coalition (NHMC) Motion Regarding Informal Consumer Complaints is DENIED.

357. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Declaratory Ruling, Report and Order, and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

358. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Declaratory Ruling, Report and Order, and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

359. IT IS FURTHER ORDERED that, pursuant to 47 CFR § 1.4(b)(1), the period for filing petitions for reconsideration or petitions for judicial review of this Declaratory Ruling, Report and Order, and Order will commence on the date that a summary of this Declaratory Ruling, Report and Order, and Order is published in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Final Rules

The Federal Communications Commission amends 47 CFR Parts 1, 8, and 20 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. Amend section 1.49 by revising paragraph (f)(1)(i) to read as follows:

§ 1.49 Specifications as to pleadings and documents.

* * * * *

(f) * * *

(1) * * *

(i) Formal complaint proceedings under Section 208 of the Act and rules in §§1.720 through 1.736, and pole attachment complaint proceedings under Section 224 of the Act and rules in §§1.1401 through 1.1424;

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2. Amend the heading of part 8 to read as follows:

PART 8: INTERNET FREEDOM

3. Amend the authority citation for part 8 to read as follows:

AUTHORITY: 47 U.S.C. §§ 154, 201(b), 257, and 303(r).

4. Amend section 8.1 to read as follows:

§ 8.1 Transparency.

(a) Any person providing broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance characteristics, and commercial terms of its broadband Internet access services sufficient to enable consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings. Such disclosure shall be made via a publicly available, easily accessible website or through transmittal to the Commission.

(b) Broadband Internet access service is a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence or that is used to evade the protections set forth in this part.

(c) A network management practice is reasonable if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.

5. Remove and delete in their entirety sections 8.2, 8.3, 8.5, 8.7, 8.9, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, and 8.19.

PART 20: COMMERCIAL MOBILE SERVICES

6. Amend Section 20.3 as follows:

§ 20.3 Definitions.

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Commercial mobile radio service. * * *

* * * * *

(b) The functional equivalent of such a mobile service described in paragraph (a) of this section.

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Interconnected Service. A service:

(a) That is interconnected with the public switched network, or interconnected with the public switched network through an interconnected service provider, that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network; or

(b) * * *

* * * * *

Public Switched Network. Any common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that uses the North American Numbering Plan in connection with the provision of switched services.

APPENDIX B

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),[1] as amended, Initial Regulatory Flexibility Analysis (IRFAs) was incorporated in the *Notice of Proposed Rule Making* (*Internet Freedom NPRM*) for this proceeding.[2] The Commission sought written public comment on the proposals in the *Internet Freedom NPRM*, including comment on the IRFA. The Commission received comments on the *Internet Freedom NPRM* IRFA, which are discussed below.[3] This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[4]

A. Need for, and Objectives of, the Final Rules

2. In order to return the Internet to the light-touch regulatory environment that allowed investment to increase and consumers to benefit, we return broadband Internet access service to its longstanding classification as an information service,[5] and eliminate several rules adopted in the *Title II Order*, including the general conduct standard, the ban on paid prioritization, and the no-blocking and no-throttling rules.[6] We retain the transparency rule adopted in the *Open Internet Order*,[7] with modifications, while eliminating the additional reporting obligations created in the *Title II Order*, the *Title II Order*'s direct notification requirement, and the broadband label "safe harbor."[8]

3. We also eliminate the formal complaint procedures under Part 8 of the Act, because the informal complaint procedures are sufficient.[9] We eliminate the other components of the enforcement regime created in the *Title II Order*, including the position of Open Internet Ombudsperson and the issuance of advisory opinions.[10] We also return mobile broadband Internet access service to its longstanding definition as a private mobile radio service under section 332 of the Communications Act.[11]

4. The transparency rule we adopt is necessary because properly tailored transparency disclosures provide valuable information to the Commission to enable it to meet its statutory obligation to observe the communications marketplace to monitor the introduction of new services and technologies, and to identify and eliminate potential marketplace barriers for the provision of information service. Such disclosures also provide valuable information to other Internet ecosystem participants; transparency substantially reduces the possibility that ISPs will engage in harmful practices, and it incentivizes quick corrective measures by providers if problematic conduct is identified. Appropriate disclosures help consumers make informed choices about their purchase and use of broadband services. Moreover, clear disclosures improve consumer confidence in ISPs' practices, ultimately increasing user adoption and

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[1] 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[2] *Restoring Internet Freedom*, Notice of Proposed Rulemaking, 32 FCC Rcd 4434 (2017) (*Internet Freedom NPRM*).

[3] *See, e.g.*, WISPA Comments at 2.

[4] *See* 5 U.S.C. § 604.

[5] *See supra* Part III.A.

[6] *See supra* Part IV.B.

[7] *See supra* Part IV.B.2.

[8] *See id*.

[9] *See supra* Part IV.C.

[10] *See id*.

[11] *See supra* Part III.B.

leading to additional investment and innovation, while providing entrepreneurs and other small businesses the necessary information to innovate and improve products.

5. Our enforcement changes will ensure that ISPs will be held accountable for any violations of the transparency rule. We eliminate the formal complaint procedures because the informal complaint procedure, in conjunction with other redress options including consumer protection laws, will sufficiently protect consumers. Additionally, we eliminate the position of Open Internet Ombudsperson because the staff from the Consumer and Governmental Affairs Bureau—other than the Ombudsperson—have been performing the Ombudsperson functions envisioned by the *Title II Order*. We also eliminate the issuance of enforcement advisory opinions, because enforcement advisory opinions do not diminish regulatory uncertainty, particularly for small providers. Instead, they add costs and uncertain timelines since there is no specific timeframe within which to act, which can also inhibit innovation.

6. We return mobile broadband Internet access service to its original classification as a private mobile radio service because we find that the definitions of the terms "public switched network" and "interconnected service" that the Commission adopted in the 1994 *Second CMRS Report and Order* reflect a better reading of the Act. Accordingly, we readopt those definitions.

7. We restore the definition of interconnected service that existed prior to the *Title II Order*. Prior to that Order, the term "interconnected service" was defined under the Commission's rules as a service "that gives subscribers the capability to communicate to or receive communication from *all* other users on the public switched network." The *Title II Order* modified this definition by deleting the word "all," finding that mobile broadband Internet access service should still be considered an interconnected service even if it only enabled users to communicate with "some" other users of the public switched network rather than all. We conclude that the better reading of "interconnected service" is one that enables communication between its users and all other users of the public switched network.

8. The legal basis for the rules we adopt today includes sections 3, 4, 201(b), 230, 231, 257, 303, 332, 403, 501, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 153, 154, 201(b), 230, 231, 257, 303, 332, 403, 501, 503. The transparency rule we adopt today relies on section 257 of the Communications Act. Section 257 requires the Commission to make triennial reports to Congress, and those triennial reports must identify "market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services."[12]

B. Summary of Significant Issues Raised by Public Comments to the IRFA

9. The Wireless Internet Service Providers Association (WISPA) argued that the IRFA was incomplete and inaccurate.[13] We find that this FRFA sufficiently addresses WISPA's concerns and explains how we "alleviate many of the significant financial harms on small providers imposed by the [*Title II Order*]."[14]

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

10. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel of the Small Business

[12] 47 U.S.C. § 257.

[13] Letter from S. Jenell Trigg, Counsel to WISPA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 2 (filed May 10, 2017) ("WISPA *Ex Parte* Letter").

[14] *Id*.

Administration (SBA), and to provide a detailed statement of any change made to the proposed rule(s) as a result of those comments.[15]

11. The Chief Counsel did not file any comments in response to the proposed rule(s) in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Final Rule May Apply

12. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[16] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[17] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[18] A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[19] Nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA.[20] A "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[21]

1. Total Small Entities

13. *Small Entities, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive small entity size standards that could be directly affected herein.[22] First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.[23] These types of small businesses represent 99.9 percent of all businesses in the United States which translates to 28.8 million businesses.[24] Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[25] Nationwide, as of Aug 2016, there were approximately 356,494 small organizations based on registration and tax data filed by

[15] 5 U.S.C. § 604(a)(3).

[16] 5 U.S.C. § 603(b)(3).

[17] 5 U.S.C. § 601(6).

[18] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

[19] *See* 15 U.S.C. § 632.

[20] *See* SBA, Office of Advocacy, "Frequently Asked Questions," http://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf (last visited Mar. 8, 2016).

[21] 5 U.S.C. § 601(4).

[22] *See* 5 U.S.C. § 601(3)-(6).

[23] *See* SBA, Office of Advocacy, "Frequently Asked Questions, Question 1 - What is a small business?," https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

[24] *See* SBA, Office of Advocacy, "Frequently Asked Questions, Question 2- How many small business are there in the U.S.?," https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

[25] 5 U.S.C. § 601(4).

nonprofits with the Internal Revenue Service (IRS). Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."[26] U.S. Census Bureau data from the 2012 Census of Governments[27] indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.[28] Of this number there were 37, 132 General purpose governments (county[29], municipal and town or township[30]) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts[31] and special districts[32]) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category shows that the majority of these governments have populations of less than 50,000.[33] Based on this data we estimate that at least 49,316 local government jurisdictions fall in the category of "small governmental jurisdictions."[34]

2. Broadband Internet Access Service Providers

14. The rules we adopt apply to broadband Internet access service providers. The Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider's own

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[26] 5 U.S.C. § 601(5).

[27] *See* 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with "2" and "7." *See also* Program Description Census of Government, https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=program&id=program.en.COG#.

[28] *See* U.S. Census Bureau, 2012 Census of Governments, Local Governments by Type and State: 2012 - United States-States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01. Local governmental jurisdictions are classified in two categories - General purpose governments (county, municipal and town or township) and Special purpose governments (special districts and independent school districts).

[29] *See* U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01. There were 2,114 county governments with populations less than 50,000.

[30] *See* U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States - States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

[31] *See* U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01. There were 12,184 independent school districts with enrollment populations less than 50,000.

[32] *See* U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01. The U.S. Census Bureau data did not provide a population breakout for special district governments.

[33] *See* U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States-States - https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States, https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01. While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.

[34] *Id.*

telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,[35] which has an SBA small business size standard of 1,500 or fewer employees.[36] These are also labeled "broadband." The latter are within the category of All Other Telecommunications,[37] which has a size standard of annual receipts of $32.5 million or less.[38] These are labeled non-broadband. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.[39] For the second category, census data for 2012 show that there were 1,442 firms that operated for the entire year. Of those firms, a total of 1,400 had annual receipts less than $25 million.[40] Consequently, we estimate that the majority of broadband Internet access service provider firms are small entities.

15. The broadband Internet access service provider industry has changed since this definition was introduced in 2007. The data cited above may therefore include entities that no longer provide broadband Internet access service, and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing broadband Internet access service. We note that, although we have no specific information on the number of small entities that provide broadband Internet access service over unlicensed spectrum, we include these entities in our Initial Regulatory Flexibility Analysis.

3. Wireline Providers

16. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as "establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband Internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry."[41] The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies

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[35] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[36] 13 CFR § 121.201; NAICS Code 517311.

[37] U.S. Census Bureau, 2012 NAICS Definitions, "517919 All Other Telecommunications," http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012%20NAICS%20Search.

[38] 13 CFR § 121.201; NAICS Code 517919.

[39] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[40] U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC0751SSSZ4, Information: Subject Series - Establishment and Firm Size: Receipts Size of Firms for the United States: 2012 NAICS Code 517919, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ1&prodType=table.

[41] *See* 13 CFR § 120.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition shows the NAICS code as 517311 for Wired Telecommunications Carriers. *See* https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

having 1,500 or fewer employees.[42] Census data for 2012 show that there were 3,117 firms that operated that year.[43] Of this total, 3,083 operated with fewer than 1,000 employees.[44] Thus, under this size standard, the majority of firms in this industry can be considered small.

17. *Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest applicable NAICS Code category is for Wired Telecommunications Carriers, as defined in paragraph 12 of this FRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees.[45] Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.[46] The Commission therefore estimates that most providers of local exchange carrier service are small entities that may be affected by the rules adopted.

18. *Incumbent Local Exchange Carriers (incumbent LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers as defined in paragraph 17 of this FRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees.[47] According to Commission data, 3,117 firms operated in that year. Of this total, 3,083 operated with fewer than 1,000 employees.[48] Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by the rules and policies adopted. One thousand three hundred and seven (1,307) Incumbent Local Exchange Carriers reported that they were incumbent local exchange service providers.[49] Of this total, an estimated 1,006 have 1,500 or fewer employees.[50]

19. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers, as defined in paragraph 17 of this FRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees. U.S. Census data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees.[51] Based on this data, the Commission concludes that the majority of

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[42] *Id*.

[43] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[44] *Id*.

[45] *See* 13 CFR § 120.201, NAICS Code 517311.

[46] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[47] *See* 13 CFR § 120.201, NAICS Code 517311.

[48] U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[49] *See Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*).

[50] *Id.*

[51] U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.[52] Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.[53] In addition, 72 carriers have reported that they are Other Local Service Providers.[54] Of this total, 70 have 1,500 or fewer employees.[55] Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by the adopted rules.

20. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[56] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[57] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

21. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a definition for Interexchange Carriers. The closest NAICS Code category is Wired Telecommunications Carriers as defined in paragraph 17 of this FRFA. The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.[58] According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.[59] Of this total, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees.[60] Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted.

22. *Operator Service Providers* (*OSPs*). Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[61] According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500

[52] *See Trends in Telephone Service* at Tbl. 5.3.

[53] *Id.*

[54] *Id.*

[55] *Id.*

[56] 5 U.S.C. § 601(3).

[57] Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC(filed May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

[58] 13 CFR § 121.201, NAICS Code 517311.

[59] *See Trends in Telephone Service* at Tbl. 5.3.

[60] *Id.*

[61] 13 CFR § 121.201, NAICS Code 517311.

or fewer employees and two have more than 1,500 employees.[62] Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our adopted rules.

23. *Other Toll Carriers*. Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable NAICS Code category is for Wired Telecommunications Carriers as defined above. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.63 Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.[64] Thus, under this category and the associated small business size standard, the majority of Other Toll Carriers can be considered small. According to internally developed Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.[65] Of these, an estimated 279 have 1,500 or fewer employees.66 Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by rules adopted pursuant to the Order.

4. Wireless Providers- Fixed and Mobile

24. The broadband Internet access service provider category covered by these rules may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

25. *Wireless Telecommunications Carriers (except Satellite*). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves, such as cellular services, paging services, wireless internet access, and wireless video services.[67] The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. For this industry, Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees.[68] Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized

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[62] *Trends in Telephone Service* at Tbl. 5.3.

[63] 13 CFR § 121.201, NAICS Code 517311.

[64] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[65] *Trends in Telephone Service* at Tbl. 5.3.

[66] *Id*.

[67] NAICS Code 517210. *See* https://www.census.gov/econ/isp/sampler.php?naicscode=517210&naicslevel=6#.

[68] 2012 U.S. Economic Census, NAICS Code 517210, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodType=table.

Mobile Radio (SMR) services.[69] Of this total, an estimated 261 have 1,500 or fewer employees.[70] Consequently, the Commission estimates that approximately half of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

26. The Commission's own data—available in its Universal Licensing System—indicate that, as of October 25, 2016, there are 280 Cellular licensees that will be affected by our actions today.[71] The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service, and Specialized Mobile Radio Telephony services.[72] Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.[73] Thus, using available data, we estimate that the majority of wireless firms can be considered small.

27. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[74] The SBA has approved these definitions.[75]

28. *1670–1675 MHz Services*. This service can be used for fixed and mobile uses, except aeronautical mobile.[76] An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

29. *Wireless Telephony*. Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).[77] Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.[78] According to Commission data, 413 carriers reported that they were engaged in wireless telephony.[79] Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.[80] Therefore, a little less than one third of these entities can be considered small.

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[69] *See Trends in Telephone Service* at Tbl. 5.3.

[70] *Id.*

[71] *See* http://wireless.fcc.gov/uls. For the purposes of this FRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

[72] *See Trends in Telephone Service* at Tbl. 5.3.

[73] *See id*.

[74] *Amendment of the Commission's Rules to Establish Part 27*, *the Wireless Communications Service (WCS)*, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

[75] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

[76] 47 CFR § 2.106; *see generally* 47 CFR §§ 27.1-27.70.

[77] 13 CFR § 121.201, NAICS Code 517210.

[78] *Id*.

[79] *Trends in Telephone Service* at Tbl. 5.3.

[80] *Id*.

30. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a "small business" for C- and F-Block licenses as an entity that has average gross revenues of $40 million or less in the three previous calendar years.[81] For F-Block licenses, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[82] These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.[83] No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.[84] On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.[85] Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

31. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.[86] Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.[87] On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.[88] Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.[89] On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.[90] Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.[91]

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[81] *See Amendment of Parts 20 and 24 of the Commission's Rules - Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission's Cellular/PCS Cross-Ownership Rule*, Report and Order, 11 FCC Rcd 7824, 7850-52, paras. 57-60 (1996) (*PCS Report and Order*); *see also* 47 CFR § 24.720(b).

[82] *See PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

[83] *See Alvarez Letter 1998*.

[84] *See Broadband PCS*, *D*, *E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (Jan. 14, 1997).

[85] *See C*, *D*, *E*, *and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

[86] *See C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

[87] *See Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

[88] *See Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

[89] *Id*.

[90] *See Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

[91] *Id*.

32. *Specialized Mobile Radio Licenses.* The Commission awards "small entity" bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years.[92] The Commission awards "very small entity" bidding credits to firms that had revenues of no more than $3 million in each of the three previous calendar years.[93] The SBA has approved these small business size standards for the 900 MHz Service.[94] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.[95] A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[96]

33. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the $15 million size standard.[97] In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.[98] Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

34. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.[99] We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

35. *Lower 700 MHz Band Licenses*. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special

[92] 47 CFR § 90.814(b)(1).

[93] *Id*.

[94] *See* Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, FCC (filed Aug. 10, 1999) (*Alvarez Letter 1999*).

[95] *See Correction to Public Notice DA 96-586 "FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,"* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

[96] *See Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

[97] *See 800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

[98] *See 800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

[99] *See generally* 13 CFR § 121.201; NAICS Code 517210.

provisions such as bidding credits.[100] The Commission defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[101] A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[102] Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—"entrepreneur"—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[103] The SBA approved these small size standards.[104] An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.[105] A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.[106] Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[107] On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

36. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.[108] An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.[109] Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) won 325 licenses.

37. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.[110] On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.[111] The auction concluded on March 18, 2008, with 3 winning bidders

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[100] *See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Report and Order, 17 FCC Rcd 1022 (2002).

[101] *See id*. at 1087-88, para. 172.

[102] *See id*.

[103] *See id*. at 1088, para. 173.

[104] *See Alvarez Letter 1999*.

[105] *See Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

[106] *See id*.

[107] *See id*.

[108] *Service Rules for the 698-746, 747-762 and 777-792 MHz Band et al.*, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007) (*700 MHz Second Report and Order*).

[109] *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

[110] *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

[111] *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) and winning five licenses.

38. *700 MHz Guard Band Licensees*. In 2000, in the 700 MHz Guard Band Order, the Commission adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[112] A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[113] Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[114] SBA approval of these definitions is not required.[115] An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000.[116] Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[117]

39. *Air-Ground Radiotelephone Service*. The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.[118] There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $40 million.[119] A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $15 million.[120] These definitions were approved by the SBA.[121] In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning

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[112] *See Service Rules for the 746-764 MHz Bands*, *and Revisions to Part 27 of the Commission's Rules*, Second Report and Order, 15 FCC Rcd 5299 (2000).

[113] *See id*. at 5343, para. 108.

[114] *See id*.

[115] *See id*. at 5343, para. 108 n.246 (for the 746-764 MHz and 776-794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

[116] *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

[117] *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

[118] 13 CFR § 121.201, NAICS Codes 517210.

[119] *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services*, *Biennial Regulatory Review—Amendment of Parts 1*, *22*, *and 90 of the Commission's Rules*, *Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).

[120] *Id*.

[121] *See* Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, FCC (filed Sept. 19, 2005).

bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

40. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3))*. For the AWS-1 bands,[122] the Commission has defined a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding $40 million, and a "very small business" as an entity with average annual gross revenues for the preceding three years not exceeding $15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.[123]

41. *3650–3700 MHz band*. In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

42. *Fixed Microwave Services.* Microwave services include common carrier,[124] private-operational fixed,[125] and broadcast auxiliary radio services.[126] They also include the Local Multipoint Distribution Service (LMDS),[127] the Digital Electronic Message Service (DEMS),[128] and the 24 GHz Service,[129] where licensees can choose between common carrier and non-common carrier status.[130] At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. For purposes of the

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[122] The service is defined in section 90.1301 *et seq*. of the Commission's Rules, 47 CFR § 90.1301 *et seq*.

[123] *See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Report and Order, 18 FCC Rcd 25162, Appx. B (2003), *modified by Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Order on Reconsideration, 20 FCC Rcd 14058, Appx. C (2005); *Service Rules for Advanced Wireless Services in the 1915-1920 MHz*, *1995-2000 MHz*, *2020-2025 MHz and 2175-2180 MHz Bands; Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, Appx. B (2005); *Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band*, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, Appx. (2007).

[124] *See* 47 CFR Part 101, Subparts C and I.

[125] *See* 47 CFR Part 101, Subparts C and H.

[126] Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. *See* 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

[127] *See* 47 CFR Part 101, Subpart L.

[128] *See* 47 CFR Part 101, Subpart G.

[129] *See id*.

[130] *See* 47 CFR §§ 101.533, 101.1017.

IRFA, we will use the SBA's definition applicable to Wireless Telecommunications Carriers (except satellite)—i.e., an entity with no more than 1,500 persons.[131] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.[132] The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

43. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and "wireless cable," transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).[133] In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than $40 million in the previous three calendar years.[134] The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.[135] After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules.

44. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.[136] The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed $3 million and do not exceed $15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed $3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.[137] Auction 86 concluded in 2009 with

[131] 13 CFR § 121.201, NAICS Code 517210.

[132] 13 CFR § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 CFR citations were 13 CFR § 121.201, NAICS Codes 517211 and 517212 (referring to the 2002 NAICS).

[133] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

[134] 47 CFR § 21.961(b)(1).

[135] 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard of 1500 or fewer employees.

[136] *Auction of Broadband Radio Service (BRS) Licenses*, *Scheduled for October 27*, *2009*, *Notice and Filing Requirements*, *Minimum Opening Bids*, *Upfront Payments*, *and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

[137] *Id*. at 8296, para. 73.

the sale of 61 licenses.[138] Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

5. Satellite Service Providers

45. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. Both categories have a small business size standard of $32.5 million or less in average annual receipts, under SBA rules.[139]

46. *Satellite Telecommunications.* This category comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications."[140] The category has a small business size standard of $32.5 million or less in average annual receipts, under SBA rules.[141] For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.[142] Of this total, 299 firms had annual receipts of less than $25 million.[143] Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

47. *All Other Telecommunications.* "All Other Telecommunications" is defined as follows: "This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client supplied telecommunications connections are also included in this industry."[144] The SBA has developed a small business size standard for "All Other Telecommunications," which consists of all such firms with gross annual receipts of $32.5 million or less.[145] For this category, Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year. Of those firms, a total of 1,400 had annual receipts less than $25 million.[146] Consequently, we conclude that the majority of All Other Telecommunications firms can be considered small.

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[138] *Auction of Broadband Radio Service Licenses Closes*, *Winning Bidders Announced for Auction 86*, *Down Payments Due November 23*, *2009*, *Final Payments Due December 8*, *2009*, *Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

[139] 13 CFR § 121.201, NAICS Code 517410.

[140] U.S. Census Bureau, 2012 NAICS Definitions, "517410 Satellite Telecommunications," http://www.census.gov/naics/2007/def/ND517410.HTM.

[141] 13 CFR § 121.201, NAICS Code 517410.

[142] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the United States: 2012, NAICS Code 517410 http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ4&prodType=table.

[143] *Id*.

[144] NAICS Code 517919; https://www.census.gov/econ/isp/sampler.php?naicscode=517919&naicslevel=6.

[145] 13 CFR § 121.201, NAICS Code 517919.

[146] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC0751SSSZ1, Information: Subject Series - Establishment and Firm Size: Receipts Size of Firms for the United States: 2012 NAICS Code 517919, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ1&prodType=table.

6. Cable Service Providers

48. Because section 706 requires us to monitor the deployment of broadband using any technology, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

49. *Cable and Other Subscription Programming.* This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis. The broadcast programming is typically narrowcast in nature (e.g., limited format, such as news, sports, education, or youth-oriented). These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers.[147] The SBA size standard for this industry establishes as small, any company in this category which has annual receipts of $38.5 million or less.[148] According to 2012 U.S. Census Bureau data, 367 firms operated for the entire year.[149] Of that number, 319 operated with annual receipts of less than $25 million a year and 48 firms operated with annual receipts of $25 million or more.[150] Based on this data, the Commission estimates that the majority of firms operating in this industry are small.

50. *Cable Companies and Systems (Rate Regulation)*. The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.[151] Industry data indicate that there are currently 4,600 active cable systems in the United States.[152] Of this total, all but nine cable operators nationwide are small under the 400,000-subscriber size standard.[153] In addition, under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer subscribers.[154] Current Commission records show 4,600 cable systems nationwide.[155] Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers,

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[147] *See* U.S. Census Bureau, 2012 NAICS Definitions, "515210 Cable and other Subscription Programming", *https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.515210#*.

[148] *See* 13 C.F.R. 121.201, NAICS Code 515210.

[149] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Tbl. EC1251SSSZ4, Information: Subject Series - Estab & Firm Size: Receipts Size of Firms for the U.S.: 2012, NAICS Code 515210, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4//naics~515210.

[150] *Id*. Available census data does not provide a more precise estimate of the number of firms that have receipts of $38.5 million or less.

[151] 47 CFR § 76.901(e)

[152] Federal Communications Commission, Assessment and Collection of Regulatory Fees for Fiscal Year 2014; Assessment and Collection of Regulatory Fees for Fiscal Year 2013; and Procedures for Assessment and Collection of Regulatory Fees, 80 Fed. Reg. 66815 (Oct. 30, 2015) (citing August 15, 2015 Report from the Media Bureau based on data contained in the Commission's Cable Operations and Licensing System (COALS). *See* www.fcc.gov/coals.

[153] *See* SNL KAGAN at https://www.snl.com/interactiveX/MyInteractive.aspx?mode=4&CDID=A-821-38606&KLPT=8 (subscription required).

[154] 47 CFR § 76.901(c).

[155] Federal Communications Commission, Assessment and Collection of Regulatory Fees for Fiscal Year 2014; Assessment and Collection of Regulatory Fees for Fiscal Year 2013; and Procedures for Assessment and Collection of Regulatory Fees, 80 Fed. Reg. 66815 (Oct. 30, 2015) (citing August 15, 2015 Report from the Media Bureau based on data contained in the Commission's Cable Operations and Licensing System (COALS). *See* www.fcc.gov/coals.

based on the same records.[156] Thus, under this standard as well, we estimate that most cable systems are small entities.

51. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000 are approximately 52,403,705 cable video subscribers in the United States today.[157] Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed $250 million in the aggregate.[158] Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.[159] We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed $250 million.[160] Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

7. All Other Telecommunications

52. "All Other Telecommunications" is defined as follows: "This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client supplied telecommunications connections are also included in this industry."[161] The SBA has developed a small business size standard for "All Other Telecommunications," which consists of all such firms with gross annual receipts of $32.5 million or less.[162] For this category, Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year. Of those firms, a total of 1,400 had annual receipts less than $25 million.[163]

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[156] *Id*.

[157] *Assessment and Collection of Regulatory Fees for Fiscal Year 2016, Notice of Proposed Rulemaking*, 31 FCC Rcd 5757, Appendix E para. 23 (2016) (citing Office of Management and Budget (OMB) Memorandum M-10-06, Open Government Directive, Dec. 8, 2009).

[158] 47 CFR § 76.901(f).

[159] *Assessment & Collection of Regulatory Fees for Fiscal Year 2016,* Notice of Proposed Rulemaking, 31 FCC Rcd 5757, Appx. E, para. 23 (2016).

[160] The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission's rules. *See* 47 CFR § 76.901(f).

[161] U.S. Census Bureau, 2012 NAICS Definitions, "517919 All other telecommunications," https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=category&id=category.en./ECN.NAICS2012.517919#main_content.

[162] 13 CFR § 121.201; NAICS Code 517919.

[163] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC0751SSSZ1, Information: Subject Series - Establishment and Firm Size: Receipts Size of Firms for the United States: 2012 NAICS Code 517919, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ1&prodType=table.

Consequently, we conclude that the majority of All Other Telecommunications firms can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

53. Today's action requires broadband Internet access service providers to "publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient to enable consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings."

54. Broadband Internet access service providers must disclose performance characteristics, network practices, and commercial terms. The required disclosures must either be posted on a publicly available, easily accessible website, or they must be submitted to the Commission, which will post the disclosures on a publicly available, easily accessible website.

55. Because the disclosure requirements we adopt today eliminate the additional reporting obligations found in the *Title II Order*, we decline to provide an exemption for smaller providers at this time. While a commenter emphasized that small broadband Internet access service providers had an even more pressing need to be classified as information service providers,[164] today's action applies equally to all providers of broadband Internet access service, and therefore does even more than the initial comment requested.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

56. Today's action restores broadband Internet access service's original classification as an information service. This will significantly decrease the burdens on small entities. Additionally, the removal of the additional reporting obligations, the direct notification requirement, and the broadband provider safe harbor form will minimize the burdens providers face.

57. The transparency rule we adopt today strikes an appropriate balance by requiring ISPs to disclose information that will allow consumers to make informed choices and that will enable the Commission to enable it to meet its statutory obligation to observe the communications marketplace to monitor the introduction of new services and technologies and to identify and eliminate potential marketplace barriers for the provision of information service, while simultaneously freeing providers from onerous burdens that produce little public benefit. While retaining the transparency rule, with modifications, from the *Open Internet Order*, we eliminate the additional reporting obligations, the direct notification requirements, and the broadband label "safe harbor," all of which will reduce the burdens on ISPs. The additional reporting obligations, the direct notification requirement, and the "safe harbor" all required ISPs to expend significant resources without a corresponding gain to consumers, entrepreneurs, or other small businesses.

58. We also eliminate several rules adopted in the *Title II Order*, including the general conduct standard, the ban on paid prioritization, and the no-blocking and no-throttling rules. We eliminate these rules for three reasons. First, the transparency rule we adopt, in combination with the state of broadband Internet access service competition and the antitrust and consumer protection laws, obviate the need for conduct rules by achieving comparable benefits at lower cost. Second, the record does not identify any legal authority to adopt conduct rules for all ISPs, and we decline to distort the market with a patchwork of non-uniform, limited-purpose rules. Third, scrutinizing closely each prior conduct rule, we find that the costs of each rule outweigh its benefits.

[164] WISPA Comments at 27.

59. We also eliminate the position of Open Internet Ombudsperson, the formal complaint process, and the issuance of advisory opinions, because the work of the Open Internet Ombudsperson is more appropriately handled by Commission staff, and because the issuance of advisory opinions and the formal complaint process have not been shown to provide any benefit to broadband Internet access service providers or consumers.

60. Finally, we return mobile broadband Internet access service to its original classification as a private mobile radio service and restore the definition of interconnected service that existed prior to the *Title II Order*. This will remove regulatory burdens from providers of mobile broadband Internet access service, including small providers.

G. Report to Congress:

61. The Commission will send a copy of this Declaratory Ruling, Report and Order, and Order, including this FRFA, in a report to be sent to Congress pursuant to the SBREFA.[165] In addition, the Commission will send a copy of this Declaratory Ruling, Report and Order, and Order, including the FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Declaratory Ruling, Report and Order, and Order, and the FRFA (or summaries thereof) will also be published in the Federal Register.[166]

[165] *See* 5 U.S.C. § 801(a)(1)(A).

[166] *See id*. § 604(b).

STATEMENT OF
CHAIRMAN AJIT PAI

Re: *Restoring Internet Freedom*, WC Docket No. 17-108.

The Internet is the greatest free-market innovation in history. It has changed the way we live, play, work, learn, and speak. During my time at the FCC, I've met with entrepreneurs who have started businesses, doctors who have helped care for patients, teachers who have educated their students, and farmers who increased their crop yields, all because of the Internet. And the Internet has enriched my life immeasurably. In the past few days alone, I've downloaded interesting podcasts about blockchain technology, ordered a burrito, managed my playoff-bound fantasy football team, and—as you may have seen—tweeted.

What is responsible for the phenomenal development of the Internet? It certainly wasn't heavy-handed government regulation. Quite to the contrary: At the dawn of the commercial Internet, President Clinton and a Republican Congress agreed that it would be the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet . . . unfettered by Federal or State regulation."

This bipartisan policy worked. Encouraged by light-touch regulation, the private sector invested over $1.5 trillion to build out fixed and mobile networks throughout the United States. 28.8k modems gave way to gigabit fiber connections. Innovators and entrepreneurs grew startups into global giants. America's Internet economy became the envy of the world.

And this light-touch approach was good for consumers, too. In a free market full of permissionless innovation, online services blossomed. Within a generation, we've gone from email as the killer app to high-definition video streaming. Entrepreneurs and innovators guided the Internet far better than the clumsy hand of government ever could have.

But then, in early 2015, the FCC jettisoned this successful, bipartisan approach to the Internet. On express orders from the previous White House, the FCC scrapped the tried-and-true, light touch regulation of the Internet and replaced it with heavy-handed micromanagement. It decided to subject the Internet to utility-style regulation designed in the 1930s to govern Ma Bell.

This decision was a mistake. For one thing, there was no problem to solve. The Internet wasn't broken in 2015. We weren't living in a digital dystopia. To the contrary, the Internet is perhaps the one thing in American society we can all agree has been a stunning success.

Not only was there no problem, this "solution" hasn't worked. The main complaint consumers have about the Internet is not and has never been that their Internet service provider is blocking access to content. It's that they don't have access at all or enough competition. These regulations have taken us in the opposite direction from these consumer preferences. Under Title II, investment in high-speed networks has declined by billions of dollars. Notably, this is the first time that such investment has declined outside of a recession in the Internet era. When there's less investment, that means fewer next-generation networks are built. That means less competition. That means fewer jobs for Americans building those networks. And that means more Americans are left on the wrong side of the digital divide.

The impact has been particularly serious for smaller Internet service providers. They don't have the time, money, or lawyers to navigate a thicket of complex rules. I have personally visited some of them, from Spencer Municipal Utilities in Spencer, Iowa to Wave Wireless in Parsons, Kansas. I have personally spoken with many more, from Amplex Internet in Ohio to AirLink Services in Oklahoma. So it's no surprise that the Wireless Internet Service Providers Association, which represents small fixed wireless companies that typically operate in rural America, surveyed its members and found that over 80% "incurred additional expense in complying with the Title II rules, had delayed or reduced network expansion, had delayed or reduced services and had allocated budget to comply with the rules." Other

small companies, too, have told the FCC that these regulations have forced them to cancel, delay, or curtail fiber network upgrades. And nearly two dozen small providers submitted a letter saying the FCC's heavy-handed rules "affect our ability to find financing." Remember, these are the kinds of companies that are critical to providing a more competitive marketplace.

These rules have also impeded innovation. One major company, for instance, reported that it put on hold a project to build out its out-of-home Wi-Fi network due to uncertainty about the FCC's regulatory stance. And a coalition of 19 municipal Internet service providers—that is, city-owned nonprofits—have told the FCC that they "often delay or hold off from rolling out a new feature or service because [they] cannot afford to deal with a potential complaint and enforcement action."

None of this is good for consumers. We need to empower all Americans with digital opportunity, not deny them the benefits of greater access and competition.

And consider too that these are just the effects these rules have had on the Internet of today. Think about how they'll affect the Internet we need ten, twenty years from now. The digital world bears no resemblance to a water pipe or electric line or sewer. Use of those pipes will be roughly constant over time, and very few would say that there's dramatic innovation in these areas. By contrast, online traffic is exploding, and we consume exponentially more data over time. With the dawn of the Internet of Things, with the development of high bit-rate applications like virtual reality, with new activities like high-volume bitcoin mining that we can't yet fully grasp, we are imposing ever more demands on the network. Over time, that means our networks themselves will need to scale, too.

But they don't have to. If our rules deter the massive infrastructure investment that we need, eventually we'll pay the price in terms of less innovation. Consider these words from Ben Thompson, a highly-respected technology analyst, from a post on his blog *Stratechery* supporting my proposal:

> The question that must be grappled with . . . is whether or not the Internet is 'done.' By that I mean that today's bandwidth is all we [will] need, which means we can risk chilling investment through prophylactic regulation and the elimination of price signals that may spur infrastructure build-out. . . .
>
> If we are "done", then the potential harm of a Title II reclassification is much lower; sure, ISPs will have to do more paperwork, but honestly, they're just a bunch of mean monopolists anyways, right? Best to get laws in place to preserve what we have.
>
> But what if we aren't done? What if virtual reality with dual 8k displays actually becomes something meaningful? What if those imagined remote medicine applications are actually developed? What if the Internet of Things moves beyond this messy experimentation phase and into real-time value generation, not just in the home but in all kinds of unimagined commercial applications? I certainly hope we will have the bandwidth to support all of that![1]

I do too. And as Thompson put it in another *Stratechery* post: "The fact of the matter is there is no evidence that harm exists in the sort of systematic way that justifies heavily regulating ISPs; the evidence that does exist suggests that current regulatory structures handle bad actors perfectly well. The

[1] Ben Thompson, "Light Touch", Cable, and DSL: the Broadband Tradeoff; the Importance of Antitrust, *Stratechery*, https://stratechery.com/2017/light-touch-cable-and-dsl-the-broadband-tradeoff-the-importance-of-antitrust/ (Nov. 29, 2017).

only future to fear is the one we never discover because we gave up on the approach that has already brought us so far."[2]

Remember: networks don't have to be built. Risks don't have to be taken. Capital doesn't have to be raised. The costs of Title II today may appear, at least to some, to be hidden. But the consumers and innovators of tomorrow will pay a severe price.

* * *

So what is the FCC doing today? Quite simply, we are restoring the light-touch framework that has governed the Internet for most of its existence. We're moving from Title II to Title I. Wonkier it cannot be.

It's difficult to match that mundane reality to the apocalyptic rhetoric that we've heard from Title II supporters. And as the debate has gone on, their claims have gotten more and more outlandish. So let's be clear. Returning to the legal framework that governed the Internet from President Clinton's pronouncement in 1996 until 2015 is not going to destroy the Internet. It is not going to end the Internet as we know it. It is not going to kill democracy. It is not going to stifle free expression online. If stating these propositions alone doesn't demonstrate their absurdity, our Internet experience before 2015, and our experience tomorrow, once this order passes, will prove them so.

Simply put, by returning to the light-touch Title I framework, we are helping consumers and promoting competition. Broadband providers will have stronger incentives to build networks, especially in unserved areas, and to upgrade networks to gigabit speeds and 5G. This means there will be more competition among broadband providers. It also means more ways that startups and tech giants alike can deliver applications and content to more users. In short, it's a freer and more open Internet.

We also promote much more robust transparency among ISPs than existed three years ago. We require ISPs to disclose a variety of business practices, and the failure to do so subjects them to enforcement action. This transparency rule will ensure that consumers know what they're buying and startups get information they need as they develop new products and services.

Moreover, we empower the Federal Trade Commission to ensure that consumers and competition are protected. Two years ago, the *Title II Order* stripped the FTC of its jurisdiction over broadband providers. But today, we are putting our nation's premier consumer protection cop back on the beat. The FTC will once again have the authority to take action against Internet service providers that engage in anticompetitive, unfair, or deceptive acts. As FTC Chairman Maureen Ohlhausen recently said, "The FTC's ability to protect consumers and promote competition in the broadband industry isn't something new and far-fetched. We have a long-established role in preserving the values that consumers care about online." Or as President Obama's first FTC Chairman put it just yesterday, "the plan to restore FTC jurisdiction is good for consumers. . . . [T]he sky isn't falling. Consumers will remain protected, and the [I]nternet will continue to thrive."

So let's be absolutely clear. Following today's vote, Americans will still be able to access the websites they want to visit. They will still be able to enjoy the services they want to enjoy. There will still be cops on the beat guarding a free and open Internet. This is the way things were prior to 2015, and this is the way they will be once again.

Our decision today will also return regulatory parity to the Internet economy. Some giant Silicon Valley platforms favor imposing heavy-handed regulations on other parts of the Internet ecosystem. But all too often, they don't practice what they preach. Edge providers regularly block content that they don't

[2] Ben Thompson, Pro-Neutrality, Anti-Title II, *Stratechery*, https://stratechery.com/2017/pro-neutrality-anti-title-ii/ (Nov. 28, 2017).

like. They regularly decide what news, search results, and products you see—and perhaps more importantly, what you don't. And many thrive on the business model of charging to place content in front of eyeballs. What else is "Accelerated Mobile Pages" or promoted tweets but prioritization?

What is worse, there is no transparency into how decisions that appear inconsistent with an open Internet are made. How does a company decide to restrict a Senate candidate's campaign announcement video because her views on a public policy issue are too "inflammatory"? How does a company decide to demonetize videos from political advocates without notice? How does a company expressly block access to websites on rival devices or prevent dissidents' content from appearing on its platform? How does a company decide to block from its app store a cigar aficionado app, apparently because the company perceives that the app promotes tobacco use? You don't have any insight into any of these decisions, and neither do I. Yet these are very real, *actual* threats to an open Internet—coming from the very entities that claim to support it.

Look—perhaps certain companies support saddling broadband providers with heavy-handed regulations because those rules work to their economic advantage. I don't blame them for taking that position. And I'm not saying that these same rules should be slapped on them too. What I *am* saying is that the government shouldn't be in the business of picking winners and losers in the Internet economy. We should have a level playing field and let consumers decide who prevails.

* * *

Many words have been spoken during this debate but the time has come for action. It is time for the Internet once again to be driven by engineers and entrepreneurs and consumers, rather than lawyers and accountants and bureaucrats. It is time for us to act to bring faster, better, and cheaper Internet access to all Americans. It is time for us to return to the bipartisan regulatory framework under which the Internet flourished prior to 2015. It is time for us to restore Internet freedom.

I want to extend my deepest gratitude to the staff who have worked so many long hours on this item. From the Wireline Competition Bureau: Annick Banoun, Joseph Calascione, Megan Capasso, Paula Cech, Ben Childers, Nathan Eagan, Madeleine Findley, Doug Galbi, Dan Kahn, Melissa Kirkel, Gail Krutov, Susan Lee, Ken Lynch, Pam Megna, Kris Monteith, Ramesh Nagarajan, Eric Ralph, Deborah Salons, Shane Taylor. From the Office of General Counsel: Ashley Boizelle, Jim Carr, Kristine Fargotstein, Tom Johnson, Doug Klein, Marcus Maher, Scott Noveck, Linda Oliver, and Bill Richardson. From the Wireless Telecommunications Bureau: Stacy Ferraro, Nese Guendelsberger, Garnet Hanly, Betsy McIntyre, Jennifer Salhus, Paroma Sanyal, Jiaming "Jimmy" Shang, Don Stockdale, and Peter Trachtenberg. From the Office of Strategic Planning and Policy Analysis: Eric Burger, Mark Bykowsky, and Jerry Ellig. From the Consumer and Governmental Affairs Bureau: Jerusha Burnett. From the Public Safety and Homeland Security Bureau: Ken Carlberg. And from the Media Bureau: Tracy Waldon.

DISSENTING STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN

Re: *Restoring Internet Freedom*, WC Docket No. 17-108.

Why I must dissent

I dissent. I dissent from this fiercely-spun, legally-lightweight, consumer-harming, corporate-enabling *Destroying Internet Freedom Order*.

I dissent, because I am among the millions outraged. Outraged, because the FCC pulls its own teeth, abdicating responsibility to protect the nation's broadband consumers. Some may ask why are we witnessing such an unprecedented groundswell of public support, for keeping the 2015 net neutrality protections in place? Because the public can plainly see, that a soon-to-be-toothless FCC, is handing the keys to the internet – the internet, one of the most remarkable, empowering, enabling inventions of our lifetime – over to a handful of multi-billion dollar corporations. And if past is prologue, those very same broadband internet service providers, that the majority says you should trust to do right by you, will put profits and shareholder returns above, what is best for you.

Each of us raised our hands when we were sworn in as FCC Commissioners, took an oath and promised to uphold our duties and responsibilities 'to make available, so far as possible, to all the people of the United States, without discrimination… a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.' Today the FCC majority officially abandons that pledge and millions have taken note.

I do not believe that there are any FCC or Congressional offices immune to the deluge of consumer outcry. We are even hearing about state and local offices fielding calls and what is newsworthy is that at last count, five Republican Members of Congress went on the record in calling for a halt of today's vote. Why such a bipartisan outcry? Because the large majority of Americans are in favor of keeping strong net neutrality rules in place. The sad thing about this commentary, it pains me to say, is what I can only describe as the new norm at the FCC: A majority that is ignoring the will of the people. A majority that will stand idly by while the people they are committed to serve lose.

We have heard story after story of what net neutrality means to consumers and small businesses from places as diverse as Los Angeles' Skid Row and Marietta, Ohio. I hold in my hand letters that plead with the FCC to keep our net neutrality rules in place but what is striking and in keeping with the new norm, despite the millions of comments, letters, and calls received, this Order cites, **not even one consumer comment**. That speaks volumes about the direction the FCC is heading. That speaks volumes about just who is being heard at the FCC.

Sole proprietors, whose entire business model, depends on an open internet, are worried that the absence of clear and enforceable net neutrality protections will result in higher costs and fewer benefits because you see: they are not able to pay tolls for premium access. Even large online businesses have weighed in, expressing concern about being subject to added charges as they simply try to reach their own customers. Engineers have submitted comments including many of the internet's pioneers, sharing with the FCC majority, the fundamentals of how the internet works because from where they sit, there is no way that an item like this would ever see the light of day, if the majority understood the platform some of them helped to create.

I have heard from innovators, worried that we are standing up a mother-may-I regime, where the broadband provider becomes arbiter of acceptable online business models. And yes, I have heard from consumers, who are worried given that their broadband provider has already shown that they will charge inscrutable below-the-line fees, raise prices unexpectedly, and put consumers on hold for hours at a time. Who will have their best interests at heart in a world without clear and enforceable rules overseen by an agency with clear enforcement authority? A toothless FCC?

There has been a darker side to all of this over the past few weeks. Threats and intimidation. Personal attacks. Nazis cheering. Russian influence. Fake comments. Those are unacceptable. Some are illegal. They all are to be rejected. But what is also not acceptable, is the FCC's refusal to cooperate with state attorney general investigations, or allow evidence in the record that would undercut a preordained outcome.

Many have asked, what happens next? How will all of this – net neutrality, my internet experience, look after today? My answer is simple. When the current protections are abandoned, and the rules that have been officially in place since 2015 are repealed, we will have a Cheshire cat version of net neutrality. We will be in a world where regulatory substance fades to black, and all that is left is a broadband provider's toothy grin and those oh so comforting words: we have every incentive to do the right thing. What they will soon have, is every incentive to do their own thing.

Now the results of throwing out your net neutrality protections, may not be felt right away. Most of us will get up tomorrow morning and over the next week, wade through hundreds of headlines, turn away from those endless prognosticators, and submerge ourselves in a sea of holiday bliss. But what we have wrought will one day be apparent and by then, when you really see what has changed, I fear, it may be too late to do anything about it, because there will be no agency empowered to address your concerns. This item insidiously ensures the FCC will never be able to fully grasp the harm it may have unleashed on the internet ecosystem. And that inability might lead decisionmakers to conclude, that the next internet startup that failed to flourish and attempted to seek relief, simply had a bad business plan, when in fact what was missing was a level playing field online.

Particularly damning is what today's repeal will mean for marginalized groups, like communities of color, that rely on platforms like the internet to communicate, because traditional outlets do not consider their issues or concerns, worthy of coverage. It was through social media that the world first heard about the police shooting in Ferguson, Missouri, because legacy news outlets did not consider it important until the hashtag started trending. It has been through online video services, that a targeted entertainment ecosystem has thrived, where stories are finally being told because those same programs were repeatedly rejected by mainstream distribution and media outlets. And it has been through secure messaging platforms, where activists have communicated and organized for justice without gatekeepers with differing opinions blocking them.

Where will the next significant attack on internet freedom come from? Maybe from a broadband provider allowing its network to congest, making a high-traffic video provider ask what more can it pay to make the pain stop. That will never happen you say? Well it already has. The difference now, is the open question of what is stopping them? The difference after today's vote, is that no one will be able to stop them.

Maybe several providers will quietly roll out paid prioritization packages that enable deep-pocketed players to cut the queue. Maybe a vertically-integrated broadband provider decides that it will favor its own apps and services. Or some high-value internet-of-things traffic will be subject to an additional fee. Maybe some of these actions will be cloaked under nondisclosure agreements and wrapped up in mandatory arbitration clauses so that it will be a breach of contract to disclose these publicly or take the provider to court over any wrongdoing. Some may say "of course this will never happen." But after today's vote, what will be in place to stop them?

What we do know, is that broadband providers did not even wait for the ink to dry on this Order before making their moves. One broadband provider, who had in the past promised to not engage in paid prioritization, has now quietly dropped that promise from its list of commitments on its website. What's next? Blocking or throttling? That will never happen? After today's vote, exactly who is the cop on the beat that can or will stop them?

And just who will be impacted the most? Consumers and small businesses, that's who. The internet continues to evolve and has become ever more critical for every participant in our 21st century ecosystem: government services have migrated online, as have educational opportunities and job notices and applications, but at the same time, broadband providers have continued to consolidate, becoming bigger. They own their own content, they own media companies, and they own or have an interest in other types of services.

Why are millions so alarmed? Because they understand the risks this all poses and even those who may not know exactly what Title II authority is, know that they will be at risk without it.

I have been asking myself repeatedly, why the majority is so singularly-focused on overturning these wildly-popular rules? Is it simply because they felt that the 2015 net neutrality order, which threw out over 700 rules and dispensed with more than 25 provisions, was too heavy-handed? Is this a ploy to create a "need" for legislation where there was none before? Or is it to establish uncertainty where little previously existed?

Is it a tactic to undermine the net neutrality protections adopted in 2015 that are currently parked at the Supreme Court? You know, the same rules that were resoundingly upheld by the D.C. Circuit last year? No doubt, we will see a rush to the courthouse, asking the Supreme Court to vacate and remand the substantive rules we fought so hard for over the past few years, because today, the FCC uses legally-suspect means to clear the decks of substantive protections for consumers and competition.

It is abundantly clear why we see so much bad process with this item: because the fix was already in. There is no real mention of the thousands of net neutrality complaints filed by consumers. Why? The majority has refused to put them in the record while maintaining the rhetoric that there have been no real violations. Record evidence of the massive incentives and abilities of broadband providers to act in anti-competitive ways are missing from the docket? Why? Because those in charge have refused to use the data and knowledge the agency does have, and has relied upon in the past to inform our merger reviews. As the majority has shown again and again, the views of individuals do not matter, including the views of those who care deeply about the substance, but are not Washington insiders.

There is a basic fallacy underlying the majority's actions and rhetoric today: the assumption of what is best for broadband providers, is best for America. Breathless claims about unshackling broadband services from unnecessary regulation, are only about ensuring that broadband providers, have the keys to the internet. Assertions that this is merely a return to some imaginary status quo ante, cannot hide the fact, that this is the very first time, that the FCC, has disavowed substantive protections for consumers online.

I have made it clear that I am no lawyer, so while I make some policy points below, I will attach a more legally-oriented appendix to my statement.

Chicken Little Rises Again

Two years ago, the FCC minority predicted that the sky was going to fall. Not literally, but that all manner of harms would befall the internet ecosystem as a result of the FCC's reclassification of broadband. Just like the minority in 2010 predicted that the much more modest net neutrality rules would hamstring the internet as we know it, no concrete harms were ever shown.

It is telling that the draft cites deep regulatory uncertainty as justification for repealing the 2015 Open Internet Order, and includes sparse citations to the record. To be fair, we have seen self-serving statements from broadband providers that our net neutrality rules have somehow hamstrung them from bringing "innovative" new offerings to market before. But they never did tell us what those offerings would have been at any real level of detail. My view is that if there indeed were innovative offerings that would have garnered any real consumer interest, the better course would have been to make those ideas public, and let consumers badger the contrarian FCC into submission. Indeed, providers actually did bring to market sponsored data and zero-rating plans that the FCC closely reviewed. But, since no detailed

plans of these other phantom offerings that were allegedly foreclosed by our rules were made public, my sense is that those offerings were as real as rainbow-maned unicorns.

As I mentioned in my dissent to the Notice of Proposed Rulemaking (NPRM), the majority's reliance on broadband providers assertions of reductions in investment is highly-flawed. Nothing in this item convinces me that investment has dropped as a result of our net neutrality policies. I'd suggest taking a look at my dissent from the NPRM on this point, and incorporate that dissent by reference here generally, since the majority has failed to take my concerns into account.[1]

For one, even a Statistics 101 student knows that correlation does not equal causation. Simply identifying an effect lends no insight into what caused it. So too with capital expenditures. To suggest that net neutrality rules shifted billions of dollars in capital beggars the imagination, and the record offers no proof that investment trends match the regulatory landscape. The purported "natural experiment" research approach in the draft also fails because it does not seek to isolate differences between the past and present. For as dynamic a market as the majority suggests the broadband market is, and as interested in economic rigor as they claim to be, it would be good policymaking to attempt to isolate the relevant variables.

And to make it even more ridiculous, the broadband capital expenditures trend articulated by those believing investment has dropped, follows the capital expenditures trend in the nation more broadly. The Federal Reserve Bank of St. Louis tracks Gross Private Domestic Investment, a component of the gross domestic product that tracks capital expenditures across all industries in the United States. If you believe the information submitted by broadband providers in the record, that information tracks the Fed's assessment of investment in the broader economy. This suggests that any alleged decrease in investment by broadband providers could be due to macroeconomic factors that influenced the overall economy, rather than the 2015 Open Internet rules.

Misreading Regulatory History

This item's justification for rolling back our light-touch Title II approach is grounded primarily in assertions that this is simply returning to the regulatory status quo ante. The item even cites precedent going as far back as 1998 for the proposition that the FCC has always considered internet service an information service. Well, take a walk back with me down the halls of FCC Past.

It is the 1960's and 70's when packet-switched precursors to internet access were uniformly considered Title II services. The FCC was thoughtfully considering packet-switched networks as early as 1966 when it launched the first Notice of Inquiry into the interdependence of computers and common carrier telecommunications services. Now, all telecom geeks know that the ARPANET was the precursor to the commercial internet, but what you may not know is how close we came to having it owned by AT&T. In the early 1970s, AT&T was approached with a proposition: buy ARPANET and operate it as a public, common carrier service. AT&T declined, because it did not fit with their business objectives. It was over a decade later before AT&T developed its own packet-switching solution.

So, the logical thing to do was commercialize the offering itself. Some key ARPANET players thus founded Telenet Corporation and, in 1973, applied for a FCC license to operate the nascent service on a common carrier basis, offering functionality like database access and electronic mail. In 1974, the FCC approved Telenet's application and began offering the service, filing its first tariff on August 15, 1975.

What does this show? That the FCC majority is being disingenuous in its retelling of regulatory history, particularly as it relates to internet and packet-switched services. This majority is not "returning"

[1] *Restoring Internet Freedom*, WC Docket No. 17-108, Notice of Proposed Rulemaking, 32 FCC Rcd 4434, 4495 (2017) (Statement of Commissioner Mignon L. Clyburn).

to a time where packet-switched networking, and the internet access variant, in particular, were regulated as Title I services. Indeed, the item is internally inconsistent since it admits that Digital Subscriber Line (DSL) services were regulated as Title II services until 2005. Even after 2005, and to this day, hundreds of wireline carriers continue to offer broadband as a Title II service.

It was not until the early 2000s that the FCC began deregulating internet transmission. Up until that point, broadband providers were required to line share and unbundle their networks, which allowed vibrant retail competition for internet access over the incumbent networks. It was only when as a policy matter the FCC decided to collapse the protocol stack and rely wholly on intermodal competition for fixed services, that it had to decide what to do with the transmission component that was clearly a telecommunications service.

These are issues with which the FCC has struggled mightily, and I am sure will continue to struggle with in the future. But painting the FCC's past approach to internet access as a deregulatory nirvana fails to grapple with the truth of our regulatory past.

Re-Re-Classification

As I have said before, it makes no sense to take regulatory protections away from a transmission medium that consumers use to connect to the world and go about their business. It makes even less sense when you realize that voice service, which contains many of the same transmission properties, is treated as a Title II service.

While much of the item is focused on whether broadband has this "capability" or not, whether that capability is "offered" to consumers or not, I believe it is instructive just to bring it up a level and compare the FCC's historic classification of voice service with broadband service. Again, it makes absolutely no sense that broadband is about to be a Title I service, while voice service is a Title II service. And, as I noted in my dissent to the NPRM, there is not a single modern service that the majority would characterize as a telecommunications service, effectively reading that definition out of the statute. Hundreds of computer scientists who filed in the record agree that this reclassification is nonsensical and does not match up with the underlying internet technology. This can easily be lost in the regulatory-gobbledygook that I will let the lawyers deal with, but I think it is illuminating to make a few points about this.

From a consumer perspective, both voice and broadband serve to connect people and information. For a voice service, you type in the person's name on your smartphone, hit the dial button, and in a matter of milliseconds, the phone network does a series of database dips and passing of signaling information to figure out the best network routing for your phone call. The network connects the two phones, and now you can speak back and forth. Now, let's compare what happens in the broadband context. To visit a website, you type in the name of the website on your smartphone, hit the enter key, and in a matter of milliseconds, the broadband network does a series of database dips and passing of signaling information to figure out what is the best network routing for your web session. The network connects your computer with the server, and now you can send data back and forth.

Consumers use both of these services to connect to people and information. It is akin to counting angels dancing on a head of a pin to single out a database that transforms identifiers into addresses (DNS or Domain Name System) and an efficient routing mechanism (caching) in the broadband context to say that this somehow transforms the transmission of information into something else. Why not single out the Local Exchange Routing Guide, a database for voice service that transforms identifiers into addresses, as a reason to reclassify voice as an information service? Or why not use virtual connection caching, a mechanism for more efficient routing on Time Division-Multiplexing (TDM) networks, as a reason to reclassify voice as an information service? On the consumer side, does a call to a voice-menu that allows you to pay your credit-card bill somehow turn your telephone service into an information service? Does a

call to dial-a-forecast number? No. I believe this exposes this as an outcome-oriented decision, devoid of any reasonable mooring in technology or consumer expectations.

And this becomes even more clear as the FCC majority clears the decks of all the authority it could use to address these problems. It neuters section 706 of the Act, a provision which the D.C. Circuit has said can reasonably be interpreted as a substantive grant of authority. It refuses to exercise ancillary authority, or the Commission's Title III authority. All of this has far-reaching consequences for the future of the internet, and particularly for mobile broadband.

Unprotected Mobility

Since the prior Administration's first open internet proceeding in 2010, I have called upon my colleagues to protect consumers' access to mobile broadband services with the same rules that we imposed on fixed broadband services. A substantial percentage of consumers, especially those in vulnerable communities, rely solely on mobile services for their communications needs and the lack of competition in the commercial mobile wireless industry too often leaves them vulnerable. [2]

Seven years later, those circumstances have not changed even though every year, the percentage of mobile only households increases. In 2010, it was 30%; at the end of 2016 it was 50.5%.[3] According to the Pew Research Center, the share of Americans that own smartphones is now 77%, up from just 35% in the first survey of smartphone ownership conducted in 2011.[4] And the commercial wireless market has become even more consolidated, leaving consumers with fewer competitive options than they had in 2010. The U.S. Department of Justice, or DOJ, uses the well-known Herfindahl-Hirschman index (HHI) to measure market concentration, and classifies markets with an HHI of less than 1500 as unconcentrated and markets with an HHI of over 2500 as highly concentrated. In 2010, the HHI index for the commercial wireless market was 2868.[5] Now it is over 3100.[6] Since the percentage of consumers who rely solely on mobile for their communications needs is increasing every year, and the commercial wireless industry is becoming increasingly consolidated, the need to protect mobile broadband consumers is even greater now than it was in 2010. Health Resources and Services Administration (HRSA), Rural Health Information Hub, Health Care Workforce Distribution and Shortage Issues in Rural America, https://www.ruralhealthinfo.org (last visited Dec. 15, 2016).

The majority's decision to now reclassify mobile broadband is based upon a misguided analysis of the law and the relevant record evidence. Congress did not lock in the meaning of the phrase "public switched network," as referring to the public switched *telephone* network more than 22 years ago. If it had, it would not have included the words immediately following that phrase "as such terms are defined by regulation by the Commission." That language is an express delegation of authority from Congress to

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[2] *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52,

Report and Order, 25 FCC Rcd 17905, 18082 (2010) (Statement of Commissioner Mignon Clyburn, Approving in Part, Concurring in Part).

[3] *See* Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July–December 2016, Stephen J. Blumberg, Ph.D., and Julian V. Luke, https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201705.pdf (last visited Dec. 21, 2017).

[4] *See* Mobile Fact Sheet, http://www.pewinternet.org/fact-sheet/mobile/ (last visited Dec. 21, 2017).

[5] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 11-186, Sixteenth Report, 28 FCC Rcd 3700, 3718 (2013).

[6] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 17-69, Twentieth Report, at 39, FCC 17-126 (Sept. 27, 2017).

the Commission and it allows the agency to adopt a different definition for the public switched network when the facts warrant such a change. In 2015, the Commission determined that mobile broadband is interconnected to the "public switched network" because, through the use of VoIP, messaging, and similar applications, it effectively gives subscribers the capability to communicate with all North American Numbering Plan (NANP) endpoints as well as with all users of the Internet."[7] The D.C. Circuit upheld this determination as reasonable and went on to explain that the record had additional evidence of applications "that would allow a mobile broadband (or other computer) user to employ a service enabling her to receive telephone calls to her IP address."[8] The majority's order does not point to any changed circumstance that could reasonably refute the FCC's decision that mobile broadband is interconnected to the public switched network or the D.C. Circuit's rationale for upholding the *Open Internet Order* on this issue. The majority simply refuses to address them.[9] The majority's finding that mobile broadband service does not interconnect with the public switched telephone network also ignores record evidence to the contrary. A number of engineers and other parties filed comments explaining why the PSTN and IP networks should not be viewed as two completely separate networks.[10] In fact, the Electronic Frontier Foundation (EFF) explained that technical developments, such as the E.164 Uniform Resource Identified and the 5G Evolved Packet Core enable mobile broadband services to directly connect with the PSTN.[11] Although the majority discusses this EFF filing,[12] it refuses to acknowledge this evidence means mobile broadband internet access services "provide interconnection to the public switched network using the NANP"[13] and that invalidates its determination that mobile broadband does not interconnect with the PSTN.

The majority also errs by expressly deciding not to exercise its Title III authority. Although the majority concedes that the Commission has authority to impose open internet conduct rules on mobile broadband service licensees, it declines to do so because of its view that this would lead to imposing regulatory burdens on mobile licensees that are not placed on fixed broadband services. I do not see how the majority can properly reach that conclusion until it has reviewed the more than 47,000 complaints that the National Hispanic Media Coalition's (NHMC) FOIA request revealed. This is another reason why the Commission should have delayed its vote on this item. Before expressly declining to exert Title III authority, the Commission should have reviewed those complaints to determine if commercial wireless licensees are blocking, throttling or engaging in other unreasonable conduct regarding mobile broadband services.

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[7] *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5787 (2015).

[8] U*.S. Telecom Ass'n v. FCC*, 825 F.3d 674, 722 (D.C. Cir. 2016) (describing Apple's Continuity that allows an iPhone user with mobile voice service to call an iPad user with mobile broadband service and Google Voice and Hangouts services that allow mobile broadband users to receive calls from telephone users).

[9] Restoring Internet Freedom Order, n. 301 ("We do not here address whether IP-based services or applications such as Wi-Fi Calling or VoLTE would meet the definition of "interconnected service" under section 332 and the Commission's rules. We disagree with OTI New America's argument that the growing availability of Wi-Fi Calling provided by mobile carriers that also offer mobile broadband Internet access service supports the classification of mobile broadband Internet access service as a commercial mobile service.")

[10] *See, e.g.*, Scott Jordan Reply at 29-35; OTI New America at 54; Internet Engineers at 11.

[11] Letter from Erica Portnoy, Staff Technologist and Dr. Jeremy Gillula, Senior Staff Technologist, Electronic Frontier Foundation, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1-4 (filed Dec. 7, 2017).

[12] *Restoring Internet Freedom Order* at para. 76 & n. 287, para. 78 & n. 293.

[13] *Restoring Internet Freedom Order* at para. 80.

A Destructive Future

And when the current rules are laid to waste, we may be left with no one to protect consumers. This Order loudly crows about handing over authority of broadband to the FTC, an agency with no technical expertise in telecommunications and one that may not have authority over broadband providers in the first instance. But don't just take my word for it: even one of the FTC's own Commissioners has articulated these very concerns.

On the latter point we are still playing a waiting game, which is why I asked my colleagues to delay the vote until we knew for sure whether the FTC could even exercise its limited role in the net neutrality space. Unfortunately, my request was denied, and we have plowed ahead with a wildly unpopular decision that will ensure that regulatory authority is entrusted to an agency that is unable to enact the strong prophylactic protections that are necessary to protect consumers and competition in an online world.

Even if the court were to come back and say that the FTC actually has authority to address the non-common carrier activities of these providers, the FTC could still be vulnerable. Courts may deny the FTC's efforts to impose antitrust remedies on broadband providers because the industry is ostensibly regulated by the FCC. Indeed, *Verizon v. Trinko* contains language that suggests that where there is an ostensible remedy for harm under the Communications Act, the courts will not go out of their way to find an antitrust violation. So, the very fact that the FCC disclaims authority might also undermine the FTC's authority as well.

And if the FTC were to apply its substantive authority, the result may not that friendly to consumers or competition. Recall that the FTC must act after harm has already occurred, and must do so through litigation. This means no clear rules of the road for broadband, and that a startup or sole proprietor will likely be long gone before its complaint is adjudicated. This also means that most consumer harms are unlikely to reach the attention of the FTC, since their standard is that consumer injury must be "substantial" in order to state a claim under the FTC Act.

In short, we are trading in clear protections for uncertain ones, rock-solid legal authority for a shaky one, and robust enforcement authority for a weaker one. And I will note that some of the people who have criticized the FCC's authority in this context have also criticized the FTC for their "overreach." My fear is that this is yet another ploy to roll out the red carpet for broadband providers, while putting consumers in the long queue for the side door. Welcome to a regulatory-free zone.

Federalism

If you're wondering why the FCC is preempting state consumer protection laws in this item without notice, let me help you with a simple jingle that you can easily commit to memory: If it benefits industry, preemption is good; if it benefits consumers, preemption is bad.

How else can we explain the now-majority's loud dissent when the last Administration attempted to open markets through preemption of laws that unduly restricted municipal broadband? How is it that the now-majority was shocked that state's rights were being countermanded when it came to creating the Lifeline Broadband Provider certification process? But when it comes to ensuring that states cannot enact broadband privacy protections, net neutrality protections, or other consumer protections, it somehow becomes urgent for the FCC majority to step in and preempt states from doing so.

Just how much notice was given for this state preemption position from a then minority that cried process fouls every other meeting? None. This is contrary to the Administrative Procedure Act, and a Reagan-era Executive Order that requires "notice and an opportunity for appropriate participation in the proceedings" whenever federalism issues are presented. It is unfortunate that the FCC majority was vocal and vociferous about their request for adequate notice, but those concerns seem to have now fallen by the wayside.

But industry rightly should have been concerned because when the FCC has refused to act in the past, states and localities often move on their own. Just look at issues like broadband privacy or contribution reform, where states are soldiering ahead where the federal government is unwilling to act. I expect that the FCC's preemption actions here will be challenged, and doubt that they will be defensible.

Universal Service?

Reclassification will do more than wreak havoc on our rules. It will also undermine our universal service construct for years to come, something which the Order implicitly acknowledges.

Right now, we have a universal service framework which allows us to support voice service, and requires these voice service providers to deploy broadband-capable facilities. The 10th Circuit has upheld this as reasonable. But as legacy voice goes the way of the dodo, we no longer have a supported telecommunications service, something that sections 214 and 254 of the Act require. And heaven forbid a disgruntled auction loser in our Connect America Fund or Mobility Fund auctions challenges the results because the auction winner is not deploying a telecommunications service. Mark my words, as our communications networks continue to transition away from legacy voice service and towards services which the Commission refuses to recognize as common carrier services, our universal service construct will become weaker. As legacy voice continues to shrink, so does the foundation of our universal service mechanism. Eventually, it will all come toppling down.

This impending implosion cannot be made clearer than in the Lifeline context. In 2016, the Commission boldly moved into the 21st century with a certification construct that would have allowed broadband-only Lifeline service. Unfortunately, in 2017, we have a FCC majority that refuses to use that construct to allow providers into the program, and has in fact proposed to use its legal authority to limit participation to facilities-based providers. This Order reaffirms that path, and suggests that the majority is not moving from its conclusion that over 70% of the market for Lifeline will be decimated under this Commission's watch. The majority continues to remain silent as to how we can enable a broadband-only Lifeline offering. I suspect there will be none which puts this agency out of compliance with its primary directive "to make available, so far as possible, to all the people of the United States, without discrimination… adequate facilities at reasonable charges."

In Memoriam

As I close my eulogy of our 2015 net neutrality rules, carefully crafted rules that struck an appropriate balance in providing consumer protections and enabling opportunities and investment, I take ironic comfort in the words of then Commissioner Pai from 2015, because I believe this will ring true about this *Destroying Internet Freedom Order*:

> I am optimistic, that we will look back on today's vote as an aberration, a temporary deviation from the bipartisan path, that has served us so well. I don't know whether this plan will be vacated by a court, reversed by Congress, or overturned by a future Commission. But I do believe that its days are numbered.

Amen to that, Mr. Chairman. Amen to that.

APPENDIX TO DISSENTING STATEMENT OF COMMISSIONER MIGNON L. CLYBURN

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Protecting and Promoting the Open Internet	)	GN Docket No. 14-28
	)	

REPORT AND ORDER ON REMAND, DECLARATORY RULING, AND ORDER

Adopted: February 26, 2015 **Released: March 12, 2015**

By the Commission: Chairman Wheeler and Commissioners Clyburn and Rosenworcel issuing separate statements; Commissioners Pai and O'Rielly dissenting and issuing separate statements.

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I. INTRODUCTION

1. The open Internet drives the American economy and serves, every day, as a critical tool for America's citizens to conduct commerce, communicate, educate, entertain, and engage in the world around them. The benefits of an open Internet are undisputed. But it must remain open: open for commerce, innovation, and speech; open for consumers and for the innovation created by applications developers and content companies; and open for expansion and investment by America's broadband providers. For over a decade, the Commission has been committed to protecting and promoting an open Internet.

2. Four years ago, the Commission adopted open Internet rules to protect and promote the "virtuous cycle" that drives innovation and investment on the Internet—both at the "edges" of the network, as well as in the network itself. In the years that those rules were in place, significant investment and groundbreaking innovation continued to define the broadband marketplace. For example, according to US Telecom, broadband providers invested $212 billion in the three years following adoption of the rules—from 2011 to 2013—more than in any three year period since 2002.

3. Likewise, innovation at the edge moves forward unabated. For example, 2010 was the first year that the majority of Netflix customers received their video content via online streaming rather than via DVDs in red envelopes. Today, Netflix sends the most peak downstream traffic in North America of any company. Other innovative service providers have experienced extraordinary growth—Etsy reports that it has grown from $314 million in merchandise sales in 2010 to $1.35 billion in merchandise sales in 2013. And, just as importantly, new kinds of innovative businesses are busy being born. In the video space alone, in just the last sixth months, CBS and HBO have announced new plans for streaming their content free of cable subscriptions; DISH has launched a new package of channels that includes ESPN, and Sony is not far behind; and Discovery Communications founder John Hendricks has announced a new over-the-top service providing bandwidth-intensive programming. This year, Amazon took home two Golden Globes for its new series "Transparent."

4. The lesson of this period, and the overwhelming consensus on the record, is that carefully-tailored rules to protect Internet openness will allow investment and innovation to continue to flourish. Consistent with that experience and the record built in this proceeding, today we adopt

carefully-tailored rules that would prevent specific practices we know are harmful to Internet openness—blocking, throttling, and paid prioritization—as well as a strong standard of conduct designed to prevent the deployment of new practices that would harm Internet openness. We also enhance our transparency rule to ensure that consumers are fully informed as to whether the services they purchase are delivering what they expect.

5. Carefully-tailored rules need a strong legal foundation to survive and thrive. Today, we provide that foundation by grounding our open Internet rules in multiple sources of legal authority—including both section 706 of the Telecommunications Act and Title II of the Communications Act. Moreover, we concurrently exercise the Commission's forbearance authority to forbear from application of 27 provisions of Title II of the Communications Act, and over 700 Commission rules and regulations. This is a Title II tailored for the 21st century, and consistent with the "light-touch" regulatory framework that has facilitated the tremendous investment and innovation on the Internet. We expressly eschew the future use of prescriptive, industry-wide rate regulation. Under this approach, consumers can continue to enjoy unfettered access to the Internet over their fixed and mobile broadband connections, innovators can continue to enjoy the benefits of a platform that affords them unprecedented access to hundreds of millions of consumers across the country and around the world, and network operators can continue to reap the benefits of their investments.

6. Informed by the views of nearly 4 million commenters, our staff-led roundtables, numerous *ex parte* presentations, meetings with individual Commissioners and staff, and more, our decision today—once and for all—puts into place strong, sustainable rules, grounded in multiple sources of our legal authority, to ensure that Americans reap the economic, social, and civic benefits of an open Internet today and into the future.

II. EXECUTIVE SUMMARY

7. The benefits of rules and policies protecting an open Internet date back over a decade and must continue.[1] Just over a year ago, the D.C. Circuit in *Verizon v. FCC* struck down the Commission's 2010 conduct rules against blocking and unreasonable discrimination.[2] But the *Verizon* court upheld the Commission's finding that Internet openness drives a "virtuous cycle" in which innovations at the edges of the network enhance consumer demand, leading to expanded investments in

[1] *See, e.g.*, National Arts and Cultural Organizations Comments at 3 ("[B]roadband Internet service has inspired tremendous innovation, which has in turn enabled individual artists and arts organizations to reach new audiences, cultivate patrons and supporters, collaborate with peers, stimulate local economies and enrich cultural and civic discourse."); Common Cause Comments at 3-8 (arguing that the open Internet promotes free speech and civic engagement); Letter from Lauren M. Wilson, Policy Counsel, Free Press to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 (filed Jan. 13, 2015) (Free Press et al. Jan. 13, 2015 *Ex Parte* Letter) (describing the important role the open Internet plays in the work of public interest, social justice, and activist groups); Higher Education and Libraries Comments at ii ("Libraries and institutions of higher education depend upon an open Internet to carry out their missions and to serve their communities."); Engine Advocacy Comments at 3-13 (arguing that an open Internet has been essential to promoting entrepreneurship, economic growth, and innovation). Unless otherwise noted, all citations to comments in this item refer to comments filed in GN Docket No. 14-28. "Remand PN Comments" is used to denote comments that were filed in response to the Feb. 19, 2014 Public Notice released by the Wireline Competition Bureau. *See New Docket Established to Address Open Internet Remand*, GN Docket No. 14-28, Public Notice, 29 FCC Rcd 1746 (Wireline Comp. Bur. 2014). "Comments" or "Reply" are used to denote comments filed in response to the Notice of Proposed Rulemaking released by the Commission on May 15, 2014. *See Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Notice of Proposed Rulemaking, 29 FCC Rcd 5561 (2014) (*2014 Open Internet NPRM*).

[2] *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

broadband infrastructure that, in turn, spark new innovations at the edge.[3] The *Verizon* court further affirmed the Commission's conclusion that "broadband providers represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment."[4]

8. Threats to Internet openness remain today. The record reflects that broadband providers hold all the tools necessary to deceive consumers, degrade content, or disfavor the content that they don't like.[5] The 2010 rules helped to deter such conduct while they were in effect. But, as Verizon frankly told the court at oral argument, but for the 2010 rules, it would be exploring agreements to charge certain content providers for priority service.[6] Indeed, the wireless industry had a well-established record of trying to keep applications within a carrier-controlled "walled garden" in the early days of mobile applications. That specific practice ended when Internet Protocol (IP) created the opportunity to leap the wall. But the Commission has continued to hear concerns about other broadband provider practices involving blocking or degrading third-party applications.

9. Emerging Internet trends since 2010 give us more, not less, cause for concern about such threats. First, mobile broadband networks have massively expanded since 2010. They are faster, more broadly deployed, more widely used, and more technologically advanced. At the end of 2010, there were about 70,000 devices in the U.S. that had LTE wireless connections. Today, there are more than 127 million.[7] We welcome this tremendous investment and innovation in the mobile marketplace. With carefully-tailored rules in place, that investment can continue to flourish and consumers can continue to enjoy unfettered access to the Internet over their mobile broadband connections. Indeed, mobile broadband is becoming an increasingly important pathway to the Internet independent of any fixed broadband connections consumers may have, given that mobile broadband is not a full substitute for fixed broadband connections.[8] And consumers must be protected, for example from mobile commercial

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[3] *Id*. at 659.

[4] *Id.* at 645.

[5] *See infra* Section III.B.

[6] *Verizon* Oral Arg. Tr. at 31 ("I'm authorized to state by my client [Verizon] today that, but for these rules, we would be exploring those commercial arrangements, but this order prohibits those, and in fact would shrink the types of services that will be available on the Internet."). *But see* Letter from William H. Johnson, Vice President & Associate General Counsel, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1 (filed Feb. 11, 2015) (Verizon Feb. 11 *Ex Parte* Letter) (arguing that "[t]he 'commercial arrangements' referenced by counsel had nothing to do with 'restrict[ing] access' to content"). Also, during the oral argument before the D.C. Circuit, Verizon stated that "in paragraph 64 of the Order the Agency also sets forth the no charging of edge providers rule as a corollary to the no blocking rule, and that's a large part of what is causing us our harm here." In response, Judge Silberman stated, "if you were allowed to charge, which are you assuming you're allowed to charge because of the anti-common carrier point of view, if somebody refused to pay then just like in the dispute between C[B]S and Warner, Time Warner . . . you could refuse to carry." Verizon's counsel responded: "[r]ight." Verizon Oral Arg. Tr. at 28.

[7] Fierce Wireless, *1H2014: LTE Share 33% of all Mobile Connections in the U.S. and Canada vs. 4% Worldwide*, (Sept. 2014), http://www.fiercewireless.com/press-releases/1h2014-lte-share-33-all-mobile-connections-us-and-canada-vs-4-worldwide (reporting remarkable growth with 16 million LTE connections at the end of June 2012; 63 million LTE connections as of June 2013; 127 million LTE connections as of June 2014).

[8] *See, e.g.*, *Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 13-135, Seventeenth Report, 29 FCC Rcd 15311 (Wireless Tel. Bur. 2014) (*17th Mobile Wireless Report*); Robert F. Roche and Liz Dale, *Annual Wireless Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry* (June 2014); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to*

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practices masquerading as "reasonable network management." Second, and critically, the growth of online streaming video services has spurred further evolution of the Internet.[9] Currently, video is the dominant form of traffic on the Internet. These video services directly confront the video businesses of the very companies that supply them broadband access to their customers.[10]

10. The Commission, in its May *Notice of Proposed Rulemaking*, asked a fundamental question: "What is the right public policy to ensure that the Internet remains open?"[11] It proposed to enhance the transparency rule, and follow the *Verizon* court's blueprint by relying on section 706 to adopt a no-blocking rule and a requirement that broadband providers engage in "commercially reasonable" practices. The Commission also asked about whether it should adopt other bright-line rules or different standards using other sources of Commission authority, including Title II. And if Title II were to apply, the Commission asked about how it should exercise its authority to forbear from Title II obligations. It asked whether mobile services should also be classified under Title II.

11. Three overarching objectives have guided us in answering these questions, based on the vast record before the Commission: America needs more broadband, better broadband, and open broadband networks. These goals are mutually reinforcing, not mutually exclusive. Without an open Internet, there would be less broadband investment and deployment. And, as discussed further below, all three are furthered through the open Internet rules and balanced regulatory framework we adopt today.[12]

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Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 14-126, 2015 Broadband Progress Report and Notice of Inquiry, FCC 15-10, at para. 120 (rel. Feb. 4, 2015) (*2015 Broadband Progress Report*) ("We recognize that many households subscribe to both fixed and mobile services because they use fixed and mobile services in fundamentally different ways and, as such, view fixed and mobile services as distinct product offerings.").

[9] *See supra* para. 3; *see also* Netflix Inc., 2010 Annual Report (Form 10-K) (Feb. 18, 2011), http://files.shareholder.com/downloads/NFLX/3969047782x0x460274/17454c5b-3088-48c7-957a-b5a83a14cf1b/132054ACL.PDF; Letter from Reed Hastings, CEO and David Wells, CFO, Netflix to Shareholders of Netflix (Jan. 20, 2015), http://ir.netflix.com/results.cfm (follow "Q4 14 Letter to shareholders" hyperlink) (for 2014, Netflix reported 39.1 million domestic streaming subscribers compared to 5.8 million domestic DVD subscribers); Emily Steel, *Cord-Cutters Rejoice: CBS Joins Web Stream*, N.Y. Times (Oct. 16, 2014), http://www.nytimes.com/2014/10/17/business/cbs-to-offer-web-subscription-service.html; Brian Stelter, *ESPN on the web for $20 a month is coming soon*, CNN Money (Jan. 5, 2015), http://money.cnn.com/2015/01/05/media/dish-virtual-cable/; Alex Ben Block, *Discovery Founder Launching SVOD Service Described as Netflix "For Curious People,"* Hollywood Reporter (Jan. 14, 2014), http://www.hollywoodreporter.com/news/discovery-founder-launching-svod-service-763885; Jenelle Riley, *Amazon, 'Transparent' Make History at Golden Globes*, Variety (Jan. 11, 2015), http://variety.com/2015/tv/news/amazon-transparent-make-history-at-golden-globes-1201400485/.

[10] *See* Public Knowledge, Benton Foundation, and Access Sonoma Broadband (Public Knowledge) Comments at 52-53 (discussing exemption of Xfinity online video application on Xbox from Comcast's data cap without similar exemption for unaffiliated over-the-top video services).

[11] *2014 Open Internet NPRM*, 29 FCC Rcd at 5562, para. 2.

[12] Consistent with the *Verizon* court's analysis, this Order need not conclude that any specific market power exists in the hands of one or more broadband providers in order to create and enforce these rules. Thus, these rules do not address, and are not designed to deal with, the acquisition or maintenance of market power or its abuse, real or potential. Moreover, it is worth noting that the Commission acts in a manner that is both complementary to the work of the antitrust agencies and supported by their application of antitrust laws. *See generally* 47 U.S.C. § 152(b) ("[N]othing in this Act . . . shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws."). Nothing in this Order in any way precludes the Antitrust Division of the Department of Justice or the

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12. In enacting the Administrative Procedure Act (APA), Congress instructed expert agencies conducting rulemaking proceedings to "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments."[13] It is public comment that cements an agency's expertise. As was explained in the seminal report that led to the enactment of the APA:

> The reason for [an administrative agency's] existence is that it is expected to bring to its task greater familiarity with the subject than legislators, dealing with many subjects, can have. But its knowledge is rarely complete, and it must always learn the frequently clashing viewpoints of those whom its regulations will affect.[14]

13. Congress could not have imagined when it enacted the APA almost seventy years ago that the day would come when nearly 4 million Americans would exercise their right to comment on a proposed rulemaking. But that is what has happened in this proceeding and it is a good thing. The Commission has listened and it has learned. Its expertise has been strengthened. Public input has "improve[d] the quality of agency rulemaking by ensuring that agency regulations will be 'tested by exposure to diverse public comment.'"[15] There is general consensus in the record on the need for the Commission to provide certainty with clear, enforceable rules. There is also general consensus on the need to have such rules. Today the Commission, informed by all of those views, makes a decision grounded in the record. The Commission has considered the arguments, data, and input provided by the commenters, even if not in agreement with the particulars of this Order; that public input has created a robust record, enabling the Commission to adopt new rules that are clear and sustainable.

A. Strong Rules That Protect Consumers from Past and Future Tactics that Threaten the Open Internet

1. Clear, Bright-Line Rules

14. Because the record overwhelmingly supports adopting rules and demonstrates that three specific practices invariably harm the open Internet—Blocking, Throttling, and Paid Prioritization—this Order bans each of them, applying the same rules to both fixed and mobile broadband Internet access service.

15. *No Blocking*. Consumers who subscribe to a retail broadband Internet access service must get what they have paid for—access to all (lawful) destinations on the Internet. This essential and well-accepted principle has long been a tenet of Commission policy, stretching back to its landmark decision in *Carterfone*, which protected a customer's right to connect a telephone to the monopoly telephone network.[16] Thus, this Order adopts a straightforward ban:

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Commission itself from fulfilling their respective responsibilities under Section 7 of the Clayton Act (15 U.S.C. §18), or the Commission's public interest standard as it assesses prospective transactions.

[13] 5 U.S.C. § 553(c).

[14] Attorney General's Committee, *Final Report of the Attorney General Committee* at 102 (1941), http://www.law.fsu.edu/library/admin/pdfdownload/apa1941.pdf.

[15] *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547 (D.C. Cir. 1983) (quoting *BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 641 (1st Cir. 1979)).

[16] *Use of the Carterfone Device in Message Toll Telephone Service; Thomas F. Carter and Carter Electronics Corp., Dallas, Tex. (Complainants), v. American Telephone and Telegraph Co., Associated Bell System Companies, Southwestern Bell Telephone Co., and General Telephone Co. of the Southwest (Defendants)*, Docket Nos. 16942, 17073, Decision, 13 FCC 2d 420 (1968) (*Carterfone*), *recon. denied*, 14 FCC 2d 571 (1968).

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.

16. *No Throttling.* The 2010 open Internet rule against blocking contained an ancillary prohibition against the degradation of lawful content, applications, services, and devices, on the ground that such degradation would be tantamount to blocking. This Order creates a separate rule to guard against degradation targeted at specific uses of a customer's broadband connection:

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not impair or degrade lawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.

17. The ban on throttling is necessary both to fulfill the reasonable expectations of a customer who signs up for a broadband service that promises access to all of the lawful Internet, and to avoid gamesmanship designed to avoid the no-blocking rule by, for example, rendering an application effectively, but not technically, unusable. It prohibits the degrading of Internet traffic based on source, destination, or content.[17] It also specifically prohibits conduct that singles out content competing with a broadband provider's business model.

18. *No Paid Prioritization.* Paid prioritization occurs when a broadband provider accepts payment (monetary or otherwise) to manage its network in a way that benefits particular content, applications, services, or devices. To protect against "fast lanes," this Order adopts a rule that establishes that:

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not engage in paid prioritization.

"Paid prioritization" refers to the management of a broadband provider's network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity.[18]

19. The record demonstrates the need for strong action. The *Verizon* court itself noted that broadband networks have "powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users."[19] Mozilla, among many such commenters, explained that "[p]rioritization . . . inherently creates fast and slow lanes."[20] Although there are arguments that some forms of paid prioritization could be beneficial, the practical difficulty is this: the threat of harm is overwhelming,[21] case-by-case enforcement can be cumbersome for individual consumers or edge providers, and there is no practical means to measure the extent to which edge

[17] To be clear, the protections of the no-blocking and no-throttling rules apply to particular classes of applications, content and services as well as particular applications, content, and services.

[18] Unlike the no-blocking and no-throttling rules, there is no "reasonable network management" exception to the paid prioritization rule because paid prioritization is inherently a business practice rather than a network management practice.

[19] *Verizon*, 740 F.3d at 645-46.

[20] Mozilla Comments at 20.

[21] *See, e.g.*, Free Press Comments at 50 ("In packet-switching, if there is no congestion, there is no meaning to priority.").

innovation and investment would be chilled. And, given the dangers, there is no room for a blanket exception for instances where consumer permission is buried in a service plan—the threats of consumer deception and confusion are simply too great.[22]

2. No Unreasonable Interference or Unreasonable Disadvantage to Consumers or Edge Providers

20. The key insight of the virtuous cycle is that broadband providers have both the incentive and the ability to act as gatekeepers standing between edge providers and consumers. As gatekeepers, they can block access altogether; they can target competitors, including competitors to their own video services; and they can extract unfair tolls. Such conduct would, as the Commission concluded in 2010, "reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure."[23] In other words, when a broadband provider acts as a gatekeeper, it actually chokes consumer demand for the very broadband product it can supply.

21. The bright-line bans on blocking, throttling, and paid prioritization will go a long way to preserve the virtuous cycle. But not all the way. Gatekeeper power can be exercised through a variety of technical and economic means, and without a catch-all standard, it would be that, as Benjamin Franklin said, "a little neglect may breed great mischief."[24] Thus, the Order adopts the following standard:

> *Any person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule.*

22. This "no unreasonable interference/disadvantage" standard protects free expression, thus fulfilling the congressional policy that "the Internet offer[s] a forum for a true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity."[25]

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[22] AT&T Reply at 3 (proposing "a distinction between paid prioritization that is not directed by end users, and prioritization arrangements that are user-driven" and that "the Commission should not categorically foreclose such consumer-driven choices"). All Commission rules are subject to waiver requests and that principle applies to the open Internet rules. *See* 47 C.F.R. § 1.925; *Blanca Telephone Co. v. FCC*, 743 F.3d 860, 864 (D.C. Cir. 2014) ("When evaluating an agency's interpretation and application of a general, discretionary waiver standard '[o]ur review . . . is extremely limited.'") (quoting *BDPCS, Inc. v. FCC*, 351 F.3d 1177, 1181 (D.C. Cir. 2003)). As Public Knowledge has recognized, "the Commission must not only permit such Petitions and waiver applications, but genuinely consider their merits [however,] the Commission has broad discretion with regard to what standard it will apply." Letter from Gene Kimmelman, President, Public Knowledge to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2 (filed Nov. 7, 2014) (Public Knowledge Nov. 7, 2014 *Ex Parte* Letter). The Order requires any applicant to demonstrate that the proposed paid prioritization practice "*would provide some significant public interest benefit and would not harm the open nature of the Internet*." It is very important to understand that a party seeking a waiver is banned from an inappropriate practice. Its only recourse is to seek a waiver, and that waiver request would not be decided until the Commission, after public comment and its own investigation, reaches a decision.

[23] *Preserving the Open Internet*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905, 17911, para. 14 (2010) (*2010 Open Internet Order*), *aff'd in part*, *vacated and remanded in part sub nom. Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

[24] Benjamin Franklin, *Poor Richard's Almanac* (1757).

[25] 47 U.S.C. § 230(a)(3).

And the standard will permit considerations of asserted benefits of innovation as well as threatened harm to end users and edge providers.

3. Enhanced Transparency

23. The Commission's 2010 transparency rule, upheld by the *Verizon* court, remains in full effect:

> *A person engaged in the provision of broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.*[26]

24. Today's Order reaffirms the importance of ensuring transparency, so that consumers are fully informed about the Internet access they are purchasing and so that edge providers have the information they need to understand whether their services will work as advertised. To do that, the Order builds on the strong foundation established in 2010 and enhances the transparency rule for both end users and edge providers, including by adopting a requirement that broadband providers always must disclose promotional rates, all fees and/or surcharges, and all data caps or data allowances; adding packet loss as a measure of network performance that must be disclosed; and requiring specific notification to consumers that a "network practice" is likely to significantly affect their use of the service. Out of an abundance of caution and in response to a request by the American Cable Association, we also adopt a temporary exemption from these enhancements for small providers (defined for the purposes of the temporary exception as providers with 100,000 or fewer subscribers), and we direct our Consumer & Governmental Affairs Bureau to adopt an Order by December 15, 2015 concerning whether to make the exception permanent and, if so, the appropriate definition of "small." Lastly, we create for all providers a "safe harbor" process for the format and nature of the required disclosure to consumers, which we believe will result in more effective presentation of consumer-focused information by broadband providers.

4. Scope of the Rules

25. The open Internet rules described above apply to both fixed and mobile broadband Internet access service. Consistent with the 2010 Order, today's Order applies its rules to the consumer-facing service that broadband networks provide, which is known as "broadband Internet access service"[27] (BIAS) and is defined to be:

> *A mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service*

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[26] 47 C.F.R. § 8.3.

[27] We note that our use of the term "broadband" in this Order includes but is not limited to services meeting the threshold for "advanced telecommunications capability," as defined in Section 706 of the Telecommunications Act of 1996, as amended. 47 U.S.C. § 1302(b). Section 706 defines that term as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." 47 U.S.C. § 1302(d)(1). The *2015 Broadband Progress Report* specifically notes that "advanced telecommunications capability," while sometimes referred to as "broadband," differs from the Commission's use of the term "broadband" in other contexts. *2015 Broadband Progress Report* at n.1 (rel. Feb. 4, 2015).

described in the previous sentence, or that is used to evade the protections set forth in this Part.

26. As in 2010, BIAS does not include enterprise services, virtual private network services, hosting, or data storage services. Further, we decline to apply the open Internet rules to premises operators to the extent they may be offering broadband Internet access service as we define it today.

27. In defining this service we make clear that we are responding to the *Verizon* court's conclusion that broadband providers "furnish a service to edge providers" (and that this service was being treated as common carriage *per se*). As discussed further below, we make clear that broadband Internet access service encompasses this service to edge providers. Broadband providers sell retail customers the ability to go anywhere (lawful) on the Internet. Their representation that they will transport and deliver traffic to and from all or substantially all Internet endpoints includes the promise to transmit traffic to and from those Internet endpoints back to the user.

28. *Interconnection.* BIAS involves the exchange of traffic between a broadband Internet access provider and connecting networks. The representation to retail customers that they will be able to reach "all or substantially all Internet endpoints" necessarily includes the promise to make the interconnection arrangements necessary to allow that access.

29. As discussed below, we find that broadband Internet access service is a "telecommunications service" and subject to sections 201, 202, and 208 (along with key enforcement provisions). As a result, commercial arrangements for the exchange of traffic with a broadband Internet access provider are within the scope of Title II, and the Commission will be available to hear disputes raised under sections 201 and 202 on a case-by-case basis: an appropriate vehicle for enforcement where disputes are primarily over commercial terms and that involve some very large corporations, including companies like transit providers and Content Delivery Networks (CDNs), that act on behalf of smaller edge providers.

30. But this Order does not apply the open Internet rules to interconnection. Three factors are critical in informing this approach to interconnection. First, the nature of Internet traffic, driven by massive consumption of video, has challenged traditional arrangements—placing more emphasis on the use of CDNs or even direct connections between content providers (like Netflix or Google) and last-mile broadband providers. Second, it is clear that consumers have been subject to degradation resulting from commercial disagreements,[28] perhaps most notably in a series of disputes between Netflix and large last-mile broadband providers. But, third, the causes of past disruption and—just as importantly—the potential for future degradation through interconnection disputes—are reflected in very different narratives in the record.

31. While we have more than a decade's worth of experience with last-mile practices, we lack a similar depth of background in the Internet traffic exchange context. Thus, we find that the best approach is to watch, learn, and act as required, but not intervene now, especially not with prescriptive rules. This Order—for the first time—provides authority to consider claims involving interconnection, a process that is sure to bring greater understanding to the Commission.

32. *Reasonable Network Management*. As with the 2010 rules, this Order contains an exception for reasonable network management, which applies to all but the paid prioritization rule (which, by definition, is not a means of managing a network):

[28] *See* Letter from Sarah J. Morris, Senior Policy Counsel, Open Technology Institute, New America Foundation to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28 (filed Oct. 30, 2014), Attach. MLab, *ISP Interconnection and Its Impact on Consumer Internet Performance, A Measurement Lab Consortium Technical Report* (Oct. 28, 2014) (MLab ISP Interconnection Report).

A network management practice is a practice that has a primarily technical network management justification, but does not include other business practices. A network management practice is reasonable if it is primarily used for and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.

33. Recently, significant concern has arisen when mobile providers' have attempted to justify certain practices as reasonable network management practices, such as applying speed reductions to customers using "unlimited data plans" in ways that effectively force them to switch to price plans with less generous data allowances. For example, in the summer of 2014, Verizon announced a change to its "unlimited" data plan for LTE customers, which would have limited the speeds of LTE customers using grandfathered "unlimited" plans once they reached a certain level of usage each month. Verizon briefly described this change as within the scope of "reasonable network management," before changing course and withdrawing the change.

34. With mobile broadband service now subject to the same rules as fixed broadband service, the Order expressly recognizes that evaluation of network management practices will take into account the additional challenges involved in the management of mobile networks, including the dynamic conditions under which they operate. It also recognizes the specific network management needs of other technologies, such as unlicensed Wi-Fi networks.

35. *Non-Broadband Internet Access Service Data Services*. The 2010 rules included an exception for "specialized services." This Order likewise recognizes that some data services—like facilities-based VoIP offerings, heart monitors, or energy consumption sensors—may be offered by a broadband provider but do not provide access to the Internet generally. The term "specialized services" can be confusing because the critical point is not whether the services are "specialized;" it is that they are not broadband Internet access service. IP-services that do not travel over broadband Internet access service, like the facilities-based VoIP services used by many cable customers, are not within the scope of the open Internet rules, which protect access or use of broadband Internet access service. Nonetheless, these other non-broadband Internet access service data services could be provided in a manner that undermines the purpose of the open Internet rules and that will not be permitted. The Commission expressly reserves the authority to take action if a service is, in fact, providing the functional equivalent of broadband Internet access service or is being used to evade the open Internet rules. The Commission will vigilantly watch for such abuse, and its actions will be aided by the existing transparency requirement that non-broadband Internet access service data services be disclosed.

5. Enforcement

36. The Commission may enforce the open Internet rules through investigation and the processing of complaints (both formal and informal). In addition, the Commission may provide guidance through the use of enforcement advisories and advisory opinions, and it will appoint an ombudsperson. In order to provide the Commission with additional understanding, particularly of technical issues, the Order delegates to the Enforcement Bureau the authority to request a written opinion from an outside technical organization or otherwise to obtain objective advice from industry standard-setting bodies or similar organizations.

B. Promoting Investment with a Modern Title II

37. Today, our forbearance approach results in over 700 codified rules being inapplicable, a "light-touch" approach for the use of Title II. This includes no unbundling of last-mile facilities, no tariffing, no rate regulation, and no cost accounting rules, which results in a carefully tailored application of only those Title II provisions found to directly further the public interest in an open Internet and more, better, and open broadband. Nor will our actions result in the imposition of any new federal taxes or fees; the ability of states to impose fees on broadband is already limited by the congressional Internet tax

moratorium.

38. This is Title II tailored for the 21st Century. Unlike the application of Title II to incumbent wireline companies in the 20th Century, a swath of utility-style provisions (including tariffing) will *not* be applied. Indeed, there will be fewer sections of Title II applied than have been applied to Commercial Mobile Radio Service (CMRS), where Congress expressly required the application of Sections 201, 202, and 208, and permitted the Commission to forbear from others. In fact, Title II has never been applied in such a focused way.

39. History demonstrates that this careful approach to the use of Title II will not impede investment. First, mobile voice services have been regulated under a similar light-touch Title II approach since 1994 — and investment and usage boomed.[29] For example, between 1993 and 2009 (while voice was the primary driver of mobile revenues), the mobile industry invested more than $271 billion in building out networks, during a time in which industry revenues increased by 1300 percent and subscribership grew over 1600 percent.[30] Moreover, more recently, Verizon Wireless has invested tens of billions of dollars in deploying mobile wireless services since being subject to the 700 MHz C Block open access rules, which overlap in significant parts with the open Internet rules we adopt today.[31] But that is not all. Today, key provisions of Title II apply to certain enterprise broadband services that AT&T has described as "the epicenter of the broadband investment" the Commission seeks to promote.[32] Title II has been maintained by more than 1000 rural local exchange carriers that have chosen to offer their DSL and fiber broadband services as common carrier offerings. And, of course, wireline DSL was regulated as a common-carrier service until 2005—including a period in the late '90s and the first five years of this century that saw the highest levels of wireline broadband infrastructure investment to date.[33]

40. In any event, recent events have demonstrated that our rules will not disrupt capital markets or investment. Following recent discussions of the potential application of Title II to consumer broadband, investment analysts have issued reports concluding that Title II with appropriate forbearance is unlikely to alter broadband provider conduct or have any negative effect on their value or future

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[29] *See Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411 (1994) (*CMRS Second Report & Order*) (forbearing from various Title II requirements for CMRS).

[30] *See* CTIA Wireless Industry Indices: Annual Wireless Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry Year-End 2013 Results, 2014 at 25, 76, 97.

[31] *See* Verizon Communications, Inc., Financial Reporting Quarterly Reports 2008-2014 (Form 10-K) http://www.verizon.com/about/investors/quarterly-reports/ (last visited Feb. 23, 2015); *see also Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review-Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule*, WT Docket Nos. 07-166, 06-169, 06-150, 03-264, 96-86, PS Docket No. 06-229, CC Docket No. 94-102, Second Report and Order, 22 FCC Rcd 15289, 15364, paras. 203-204 (2007) (*700 MHz Second Report and Order*); 47 C.F.R. § 27.16.

[32] Comments of AT&T, Inc., WC Docket No. 05-25, at 2-3 (filed Apr. 16, 2013).

[33] *See* US Telecom Research Brief, *Latest Data Show Broadband Investment Surged in 2013* at 2, Chart 2 (Sept. 8, 2014) (wireline broadband capital expenditures peaked at $79 billion in 2000), http://www.ustelecom.org/sites/default/files/documents/090814%20Latest%20Data%20Show%20Broadband%20Investment%20Surged%20in%202013.pdf.

profitability.[34] Executives from large broadband providers have also repeatedly represented to investors that the prospect of regulatory action will not influence their investment strategies or long-term profitability; indeed, Sprint has gone so far to say that it "does not believe that a light touch application of Title II, including appropriate forbearance, would harm the continued investment in, and deployment of, mobile broadband services."[35] Finally, the recent AWS auction, conducted under the prospect of Title II regulation, generated bids (net of bidding credits) of more than $41 billion—further demonstrating that robust investment is not inconsistent with a light-touch Title II regime.[36]

C. Sustainable Open Internet Rules

41. We ground our open Internet rules in multiple sources of legal authority—including both section 706 and Title II of the Communications Act. The *Verizon* court upheld the Commission's use of section 706 as a substantive source of legal authority to adopt open Internet protections. But it held that, "[g]iven the Commission's still-binding decision to classify broadband providers . . . as providers of 'information services,'" open Internet protections that regulated broadband providers as common carriers would violate the Act.[37] Rejecting the Commission's argument that broadband providers only served retail consumers, the *Verizon* court went on to explain that "broadband providers furnish a service to edge providers, thus undoubtedly functioning as edge providers' 'carriers,'" and held that the 2010 no blocking and no unreasonable discrimination rules impermissibly "obligated [broadband providers] to act as common carriers."[38]

42. The *Verizon* decision thus made clear that section 706 affords the Commission

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[34] *See, e.g.*, Philip Cusick et al., *Net Neutrality: Prepared for Title II but We Take Less Negative View*, J.P. Morgan, (Nov. 11, 2014) ("We wouldn't change any of the fundamental assumptions on cable companies under our coverage under Title II, and shares are likely to rebound over time."); Paul Gallant, *Title 2 Appears Likely Outcome at FCC, but Headline Risk May Exceed Real Risk*, Guggenheim Securities, LLC, (Dec. 8, 2014) ("We would not view a Title II decision by the FCC as changing the existing Washington framework for cable broadband service. The marketplace reality under Title II would be far less problematic for cable/telcos than most believe."); Paul de Sa et al., Bernstein Research, (Nov. 17, 2014) ("We think net neutrality is largely irrelevant for fundamental value drivers. But headline noise in the coming months will likely result in fears about price regulation, increasing volatility and perhaps temporarily depressing cable & telco equity values.").

[35] Letter from Stephen Bye, Chief Technology Officer, Sprint, to Chairman Wheeler, FCC, GN Docket No. 14-28, at 1 (filed Jan. 16, 2015) (Sprint Jan. 16. 2015 *Ex Parte* Letter); *see also* Transcript of Verizon Communications Presents at UBS 42nd Annual Global Media and Communications Conference Call, Seeking Alpha (Dec. 9. 2014), *available at* http://seekingalpha.com/article/2743375-verizon-communications-vz-presents-at-ubs-42nd-annual-global-media-and-communications-conference-transcript?all=true&find=John%2BHodulik (quoting Verizon CFO Fran Shammo as saying "I mean, to be real clear, I mean this does not influence the way we invest. I mean we're going to continue to invest in our networks and our platforms, both in Wireless and Wireline FiOS and where we need to. So nothing will influence that. I mean if you think about it, look, I mean we were born out of a highly regulated company, so we know how this operates."); Brian Fung, *Verizon: Actually Strong Net Neutrality Rules Won't Affect our Network Investment*, Washington Post (Dec. 10, 2014), http://www.washingtonpost.com/blogs/the-switch/wp/2014/12/10/verizon-actually-strong-net-neutrality-rules-wont-affect-our-network-investment/; Brian Fung, *Comcast*, *Charter and Time Warner Cable All Say Obama's Net Neutrality Plan Shouldn't Worry Investors*, Washington Post (Dec. 16, 2014), http://www.washingtonpost.com/blogs/the-switch/wp/2014/12/16/comcast-charter-and-time-warner-cable-all-tell-investors-strict-net-neutrality-wouldnt-change-much/; Letter from Angie Kronenberg, COMPTEL to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Dec. 11, 2014) (COMPTEL Dec. 11, 2014 *Ex Parte* Letter).

[36] *See* John Eggerton, *AWS-3 Powers Past $44 Billion*, Broadcasting & Cable (Dec. 16, 2014), http://www.broadcastingcable.com/news/washington/aws-3-powers-past-44-billion/136438.

[37] *Verizon*, 740 F.3d at 650.

[38] *Id.* at 653.

substantive authority, and that open Internet protections are within the scope of that authority. And this Order relies on section 706 for the open Internet rules. But, in light of *Verizon*, absent a classification of broadband providers as providing a "telecommunications service," the Commission could only rely on section 706 to put in place open Internet protections that steered clear of regulating broadband providers as common carriers *per se*. Thus, in order to bring a decade of debate to a certain conclusion, we conclude that the best path is to rely on all available sources of legal authority—while applying them with a light touch consistent with further investment and broadband deployment. Taking the *Verizon* decision's implicit invitation, we revisit the Commission's classification of the retail broadband Internet access service as an information service and clarify that this service encompasses the so-called "edge service."

43. Exercising our delegated authority to interpret ambiguous terms in the Communications Act, as confirmed by the Supreme Court in *Brand X*,[39] today's Order concludes that the facts in the market today are very different from the facts that supported the Commission's 2002 decision to treat cable broadband as an information service and its subsequent application to fixed and mobile broadband services. Those prior decisions were based largely on a factual record compiled over a decade ago, during an earlier time when, for example, many consumers would use homepages supplied by their broadband provider. In fact, the *Brand X* Court explicitly acknowledged that the Commission had previously classified the transmission service, which broadband providers offer, as a telecommunications service and that the Commission could return to that classification if it provided an adequate justification.[40] Moreover, a number of parties who, in this proceeding, now oppose our reclassification of broadband Internet access service, previously argued that cable broadband should be deemed a telecommunications service.[41] As the record reflects, times and usage patterns have changed and it is clear that broadband providers are offering both consumers and edge providers straightforward transmission capabilities that the Communications Act defines as a "telecommunications service."

44. The *Brand X* decision made famous the metaphor of pizza delivery. Justice Scalia, in dissent, concluded that the Commission had exceeded its legal authority by classifying cable-modem service as an "information service."[42] To make his point, Justice Scalia described a pizzeria offering delivery services as well as selling pizzas and concluded that, similarly—broadband providers were offering "telecommunications services" even if that service was not offered on a "stand-alone basis."[43]

45. To take Justice Scalia's metaphor a step further, suppose that in 2014, the pizzeria owners discovered that other nearby restaurants did not deliver their food and thus concluded that the pizza-delivery drivers could generate more revenue by delivering from any neighborhood restaurant (including their own pizza some of the time). Consumers would clearly understand that they are being offered a delivery service.

46. Today, broadband providers are offering stand-alone transmission capacity and that conclusion is not changed even if, as Justice Scalia recognized, other products may be offered at the same time. The trajectory of technology in the decade since the *Brand X* decision has been towards greater and greater modularity. For example, consumers have considerable power to combine their mobile broadband connections with the device, operating systems, applications, Internet services, and content of their choice. Today, broadband Internet access service is fundamentally understood by customers as a

[39] *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 980-81 (2005) (*Brand X*).

[40] *Id.* at 986, 1001.

[41] *See infra* para. 314 & n.810.

[42] *Id.* at 1005 (Scalia, J., dissenting).

[43] *Id.* at 1007-09.

transmission platform through which consumers can access third-party content, applications, and services of their choosing.

47. Based on this updated record, this Order concludes that the retail broadband Internet access service available today is best viewed as separately identifiable offers of (1) a broadband Internet access service that is a telecommunications service (including assorted functions and capabilities used for the management and control of that telecommunication service) and (2) various "add-on" applications, content, and services that generally are information services. This finding more than reasonably interprets the ambiguous terms in the Communications Act, best reflects the factual record in this proceeding, and will most effectively permit the implementation of sound policy consistent with statutory objectives, including the adoption of effective open Internet protections.

48. This Order also revisits the Commission's prior classification of mobile broadband Internet access service as a private mobile service, which cannot be subject to common carrier regulation, and finds that it is best viewed as a commercial mobile service or, in the alternative, the functional equivalent of commercial mobile service. Under the statutory definition, commercial mobile services must be "interconnected with the public switched network (as such terms are defined by regulation by the Commission)."[44] Consistent with that delegation of authority to define these terms, and with the Commission's previous recognition that the public switched network will grow and change over time, this Order updates the definition of public switched network to reflect current technology, by including services that use public IP addresses. Under this revised definition, the Order concludes that mobile broadband Internet access service is interconnected with the public switched network. In the alternative, the Order concludes that mobile broadband Internet access service is the functional equivalent of commercial mobile service[45] because, like commercial mobile service, it is a widely available, for profit mobile service that offers mobile subscribers the capability to send and receive communications, including voice, on their mobile device.

49. By classifying broadband Internet access service under Title II of the Act, in our view the Commission addresses any limitations that past classification decisions placed on the ability to adopt strong open Internet rules, as interpreted by the D.C. Circuit in the *Verizon* case.

50. Having classified broadband Internet access service as a telecommunications service, we respond to the *Verizon* court's holding, supporting our open Internet rules under the Commission's Title II authority and removing any common carriage limitation on the exercise of our section 706 authority. For mobile broadband services, we also ground the open Internet rules in our Title III authority to protect the public interest through the management of spectrum licensing.

D. Broad Forbearance

51. In finding that broadband Internet access service is subject to Title II, we simultaneously exercise the Commission's forbearance authority to forbear from 30 statutory provisions and render over 700 codified rules inapplicable, to establish a light-touch regulatory framework tailored to preserving those provisions that advance our goals of more, better, and open broadband. We thus forbear from the vast majority of rules adopted under Title II. We do not, however, forbear from sections 201, 202, and

[44] 47 U.S.C. § 332(d)(2).

[45] Section 332 of the Act defines "private mobile service" as "any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service, as specified by regulation by the Commission." 47 U.S.C. § 332(d)(3).

208 (or from related enforcement provisions),[46] which are necessary to support adoption of our open Internet rules. We also grant extensive forbearance, minimizing the burdens on broadband providers while still adequately protecting the public.

52. In addition, we do not forbear from a limited number of sections necessary to ensure consumers are protected, promote competition, and advance universal access, all of which will foster network investment, thereby helping to promote broadband deployment.

53. *Section 222: Protecting Consumer Privacy.* Ensuring the privacy of customer information both directly protects consumers from harm and eliminates consumer concerns about using the Internet that could deter broadband deployment. Among other things, section 222 imposes a duty on every telecommunications carrier to take reasonable precautions to protect the confidentiality of its customers' proprietary information.[47] We take this mandate seriously. For example, the Commission recently took enforcement action under section 222 (and section 201(b)) against two telecommunications companies that stored customers' personal information, including social security numbers, on unprotected, unencrypted Internet servers publicly accessible using a basic Internet search.[48] This unacceptably exposed these consumers to the risk of identity theft and other harms.

54. As the Commission has recognized, "[c]onsumers' privacy needs are no less important when consumers communicate over and use broadband Internet access than when they rely on [telephone] services."[49] Thus, this Order finds that consumers concerned about the privacy of their personal information will be more reluctant to use the Internet, stifling Internet service competition and growth.[50] Application of section 222's protections will help spur consumer demand for those Internet access services, in turn "driving demand for broadband connections, and consequently encouraging more broadband investment and deployment," consistent with the goals of the 1996 Act.[51]

55. *Sections 225/255/251(a)(2): Ensuring Disabilities Access.* We do not forbear from those

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[46] Specifically, we do not forbear from the enforcement authorities set forth in sections 206, 207, 208, 209, 216, and 217. To preserve existing CALEA obligations that already apply to broadband Internet access service, we also decline to forbear from section 229. 47 U.S.C. § 229. *See also* 47 C.F.R. §§ 1.20000 *et seq*.

[47] 47 U.S.C. § 222(a); *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, WC Docket No. 04-36, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927, 6959, para. 64 (2007) (*2007 CPNI Order*).

[48] *See TerraCom, Inc. and YourTel America, Inc. Apparent Liability for Forfeiture*, File No.: EB-TCD-13-00009175, Notice of Apparent Liability, 29 FCC Rcd 13325, 13335-40, paras. 31-41 (2014).

[49] *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14930, para. 148 (2005) (*Wireline Broadband Classification Order*); *see also id.* at 14931, para. 149 & n.447 (noting that "long before Congress enacted section 222 of the Act, the Commission had recognized the need for privacy requirements associated with the provision of enhanced services and had adopted CPNI-related requirements in conjunction with other *Computer Inquiry* obligations").

[50] *See, e.g.*, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, *and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, *as Amended by the Broadband Data Improvement Act*, GN Docket No. 11-121, Report, 27 FCC Rcd 10342, 10410, para. 154 (2012) (*2012 Eighth Broadband Progress Report*).

[51] *2007 CPNI Order*, 22 FCC Rcd at 6957, para. 59; *see also* FCC, *Connecting America: The National Broadband Plan* at 55 (*National Broadband Plan*) (explaining that without privacy protections, new innovation and investment in broadband applications and content may be held back, and these applications and content, in turn, are likely the most effective means to advance many of Congress's goals for broadband).

provisions of Title II that ensure access to broadband Internet access service by individuals with disabilities. All Americans, including those with disabilities, must be able to reap the benefits of an open Internet, and ensuring access for these individuals will further the virtuous cycle of consumer demand, innovation, and deployment. This Order thus concludes that application of sections 225, 255, and 251(a)(2) is necessary to protect consumers and furthers the public interest, as explained in greater detail below.[52]

56. *Section 224: Ensuring Infrastructure Access.* For broadband Internet access service, we do not forbear from section 224 and the Commission's associated procedural rules (to the extent they apply to telecommunications carriers and services and are, thus, within the Commission's forbearance authority).[53] Section 224 of the Act governs the Commission's regulation of pole attachments. In particular, section 224(f)(1) requires utilities to provide cable system operators and telecommunications carriers the right of "nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled" by a utility.[54] Access to poles and other infrastructure is crucial to the efficient deployment of communications networks including, and perhaps especially, new entrants.

57. *Section 254: Promoting Universal Broadband.* Section 254 promotes the deployment and availability of communications networks to all Americans, including rural and low-income Americans—furthering our goals of more and better broadband. With the exception of 254(d), (g), and (k) as discussed below, we therefore do not find the statutory test for forbearance from section 254 (and the related provision in section 214(e)) is met. We recognize that supporting broadband-capable networks is already a key component of Commission's current universal service policies. The Order concludes, however, that directly applying section 254 provides both more legal certainty for the Commission's prior decisions to offer universal service subsidies for deployment of broadband networks and adoption of broadband services and more flexibility going forward.

58. We partially forbear from section 254(d) and associated rules insofar as they would immediately require mandatory universal service contributions associated with broadband Internet access service.[55]

59. Below, we first adopt three bright-line rules banning blocking, throttling, and paid prioritization, and make clear the no-unreasonable interference/disadvantage standard by which the Commission will evaluate other practices, according to their facts. These rules are grounded in multiple sources of statutory authority, including section 706 and Titles II and III of the Communications Act. Second, based on a current factual record, we reclassify broadband Internet access service as a

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[52] As explained in greater detail below, this Order does, however, forbear in part from the application of TRS contribution obligations that otherwise would apply to broadband Internet access service. Section 251(a)(2) precludes the installation of "network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255 or 256." *See infra* Section V.

[53] *See, e.g.*, Letter from Kathryn Zachem, Senior Vice President, Comcast, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 at 25 n.107 (filed Dec. 24, 2014) (Comcast Dec. 24, 2014 *Ex Parte* Letter); Letter from Matthew Brill, Counsel for NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 21 (Dec. 23, 2014) (NCTA Dec. 23, 2014 *Ex Parte* Letter); *see also, e.g.*, Letter from Marvin Ammori and Julie Samuels, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1 (filed Nov. 12, 2014) ("Title II forbearance should be implemented in such a way so as to encourage continued deployment and investment in networks by for example preserving pole attachment rights.").

[54] 47 U.S.C. § 224(f)(1).

[55] The first sentence of section 254(d) authorizes the Commission to impose universal service contributions requirements on telecommunications carriers—and, indeed, goes even further to require "[e]very telecommunications carrier that provides interstate telecommunications services" to contribute. 47 U.S.C. § 254(d).

telecommunications service under Title II. And, third, guided by our goals of more, better, and open broadband, we exercise our forbearance authority to put in place a "light touch" Title II regulatory framework that protects consumers and innovators, without deterring investment.

III. REPORT AND ORDER ON REMAND: PROTECTING AND PROMOTING THE OPEN INTERNET

A. History of Openness Regulation

60. These rules are the latest in a long line of actions by the Commission to ensure that American communications networks develop in ways that foster economic competition, technological innovation, and free expression. Ever since the landmark 1968 *Carterfone* decision,[56] the Commission has recognized that communications networks are most vibrant, and best able to serve the public interest, when consumers are empowered to make their own decisions about how networks are to be accessed and utilized. Openness regulation aimed at safeguarding consumer choice has therefore been a hallmark of Commission policy for over forty years.

61. In *Carterfone*, the Commission confronted AT&T's practice of preventing consumers from attaching any equipment not supplied by AT&T to their home telephones, even if the attachment did not put the underlying network at risk.[57] Finding AT&T's "foreign attachment" provisions unreasonable and unlawful, the Commission ruled that AT&T customers had the right to connect useful devices of their choosing to their home telephones, provided these devices did not adversely affect the telephone network.[58]

62. *Carterfone* and subsequent regulatory actions by the Commission severed the market for customer premises equipment (CPE) from that for telephone service.[59] In doing so, the Commission allowed new participants and new ideas into the market, setting the stage for a wave of innovation that produced technologies such as the answering machine, fax machine, and modem—thereby removing a barrier to the development of the packet switched network that would eventually become the Internet.[60]

63. Commitment to robust competition and open networks defined Commission policy at the

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[56] *Carterfone*, 13 FCC 2d 420.

[57] *Carterfone*, 13 FCC 2d at 421, 427. These "foreign attachment" provisions effectively allowed the company to extend its monopoly over phone service to the telephone equipment market as well. After AT&T prohibited use of the Carterfone, the product's manufacturer brought an antitrust action against AT&T and certain other telephone companies. The district court, applying the doctrine of primary jurisdiction, asked the Commission to determine the reasonableness and validity of the tariff and telephone companies' practices. The manufacturer also filed a formal complaint against certain of the telephone companies, and the Commission consolidated the two proceedings. *Id*. at 421-22.

[58] *Carterfone*, 13 FCC 2d at 423-424 ("[O]ur conclusion here is that a customer desiring to use an interconnecting device . . . should be able to do so, so long as the interconnection does not adversely affect the telephone company's operations or the telephone system's utility for others.").

[59] As the Commission implicitly recognized, allowing AT&T to preclude adoption of even non-harmful third-party devices forestalled the development of a competitive telephone technology market, harming innovators and consumers alike. *See id*. at 424 ("No one entity need provide all interconnection equipment for our telephone system any more than a single source is needed to supply the parts for a space probe."); *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC 2d 384, 439 para. 141 (1980) (*Computer II*).

[60] Michael T. Hoeker, Comment, *From Carterfone to the iPhone: Consumer Choice in the Wireless Telecommunications Marketplace*, 17 CommLaw Conspectus 187, 190-91 (2008); Kevin Werbach, *The Federal Computer Commission*, 84 N.C. L. Rev. 1, 20-21 (2005) (*The Federal Computer Commission*).

outset of the digital revolution as well. In a series of influential decisions, known collectively as the *Computer Inquiries*,[61] the Commission established a flexible regulatory framework to support development of the nascent information economy. The *Computer Inquiries* decisions separated the market for information services from the underlying network infrastructure, and imposed firm non-discrimination rules for network access.[62] This system prevented network owners from engaging in anti-competitive behavior and spurred the development and adoption of new technologies.[63]

64. The principles of open access, competition, and consumer choice embodied in *Carterfone* and the *Computer Inquires* have continued to guide Commission policy in the Internet era. As former Chairman Michael Powell noted in 2004, "ensuring that consumers can obtain and use the content, applications and devices they want . . . is critical to unlocking the vast potential of the broadband Internet."[64] In recognition of this fact, in 2005, the Commission unanimously approved the *Internet Policy Statement*, which laid out four guiding principles designed to encourage broadband deployment and "preserve and promote the open and interconnected nature of the Internet."[65] These principles sought to ensure that consumers had the right to access and use the lawful content, applications, and devices of their choice online, and to do so in an Internet ecosystem defined by competitive markets.[66]

65. From 2005 to 2011, the principles embodied in the *Internet Policy Statement* were incorporated as conditions by the Commission into several merger orders and a key 700 MHz license, including the SBC/AT&T, Verizon/MCI, and Comcast/NBCU mergers and the Upper 700 MHz C block open platform requirements.[67] Commission approval of these transactions was expressly conditioned on

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[61] *Regulatory & Policy Problems Presented by the Interdependence of Computer & Commc'n Servs. & Facilities*, Docket No. 16979, Final Decision and Order, 28 FCC 2d 267 (1971) (*Computer I*); *Computer II*, 77 FCC 2d 384; *Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry); and Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Thereof Communications Protocols under Section 64.702 of the Commission's Rules and Regulations*, CC Docket No. 85-229, Report and Order, 104 FCC 2d 958 (1986) (*Computer III*).

[62] *The Federal Computer Commission* at 22-26; James B. Speta, *A Common Carrier Approach to Internet Interconnection*, 54 Fed. Comm. L.J. 225, 264-67 (2002).

[63] Robert Cannon, *The Legacy of the Federal Communications Commission's Computer Inquiries*, 55 Fed. Comm. L.J. 167, 169, 204-205 (2003) (arguing that the rules established in the *Computer Inquiries* "have been wildly successful" and were "a necessary precondition for the success of the Internet").

[64] Michael K. Powell, Chairman, Federal Communications Commission, Preserving Internet Freedom: Guiding Principles for the Industry 3, Remarks at the Silicon Flatirons Symposium (Feb. 8, 2004), https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf.

[65] *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review-Review of Computer III and ONA Safeguards and Requirements; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CC Docket Nos. 02-33, 01-33, 98-10, 95-20, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986, 14987-88, para. 4 (2005) (*Internet Policy Statement*).

[66] Subject to "reasonable network management," the principles were intended to ensure consumers had the right to (1) "access the lawful Internet content of their choice;" (2) "run applications and use services of their choice;" (3) "connect their choice of legal devices that do not harm the network;" and (4) enjoy "competition among network providers, application and service providers, and content providers." *Internet Policy Statement*, 20 FCC Rcd at 14987-88, para. 4.

[67] *SBC Communications, Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65, Memorandum Opinion and Order, 20 FCC Rcd 18290, 18392, para. 211 & Appx. F (2005) (*SBC/AT&T*

(continued….)

compliance with the *Internet Policy Statement*.[68] During this time, open Internet principles were also applied to particular enforcement proceedings aimed at addressing anti-competitive behavior by service providers.[69]

66. In June 2010, following a D.C. Circuit decision invalidating the Commission's exercise of ancillary authority to provide consumers basic protections in using broadband Internet services, the Commission initiated a *Notice of Inquiry* to "seek comment on our legal framework for broadband Internet service."[70] The *Notice of Inquiry* recognized that "the current legal classification of broadband Internet service is based on a record that was gathered a decade ago."[71] It sought comment on three separate alternative legal frameworks for classifying and regulating broadband Internet service: (1) as an information service, (2) as a telecommunications service "to which all the requirements of Title II of the Communications Act would apply," and (3) solely as to the "Internet connectivity service," as a

(Continued from previous page)
Merger Order); *Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, WC Docket No. 05-75, Memorandum Opinion and Order, 20 FCC Rcd 18433, 18537, para. 221 (2005) (*Verizon/MCI Merger Order*); *Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses*, MB Docket No. 10-56, Memorandum Opinion and Order, 26 FCC Rcd 4239, 4275, para. 94 & n.213 (2011) (*Comcast/NBCU Merger Order*);*700 MHz Second Report and Order*, 22 FCC Rcd at 15364, paras. 203-204; 47 C.F.R. § 27.16.

[68] *SBC/AT&T Merger Order*, 20 FCC Rcd at 18392, para. 211 & Appx. F; *Verizon/MCI Merger Order*, 20 FCC Rcd at 18537, para. 221; *Comcast/NBCU Merger Order*, 26 FCC Rcd at 4275, para. 94 & n.213; *700 MHz Second Report and Order*, 22 FCC Rcd at 15364, paras. 203-204; 47 C.F.R. § 27.16. Additionally, the Commission used the *Internet Policy Statement* principles as a yardstick to evaluate other large-scale transactions, such as an Adelphia/Time Warner/Comcast licensing agreement, and the AT&T/BellSouth merger. *Applications for Consent to the Assignment and/or Transfer of Control of Licenses, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors, to Time Warner Cable Inc. (Subsidiaries), Assignees, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corporation (Subsidiaries), Assignees and Transferees, Comcast Corporation, Transferor, to Time Warner Inc., Transferee, Time Warner Inc., Transferor, to Comcast Corporation, Transferee*, MB Docket No. 05-192, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8299, para. 223 (2006); *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, WC Docket No. 06-74, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5727-28, para. 119 (2007) (*AT&T/BellSouth Merger Order*).

[69] These actions resulted in a 2005 consent decree by DSL service provider Madison River requiring it to discontinue its practice of blocking Voice over Internet Protocol (VoIP) telephone calls, and a 2008 Order against Comcast for interfering with peer-to-peer file sharing, which the Commission found "contravene[d] . . . federal policy" by "significantly imped[ing] consumers' ability to access the content and use the applications of their choice." *Madison River Communications*, File No. EB-05-IH-0110, Order, 20 FCC Rcd 4295 (Enforcement Bur. 2005) (*Madison River Order*); *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management,"* File No. EB-08-IH-1518, WC Docket No. 07-52, Memorandum Opinion and Order, 23 FCC Rcd 13028, 13054, 13057, paras. 44, 49 (2008) (*Comcast Order*).

[70] *Framework for Broadband Internet Service,* GN Docket No. 10-127, Notice of Inquiry, 25 FCC Rcd 7866, 7867, para. 2 (2010) (*Broadband Framework NOI*), *citing Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010). The D.C. Circuit held that the Commission could not rely solely on ancillary authority in taking enforcement action against Comcast. *Id.* at 652. Further, the court held that another potential source of authority, section 706 of the Telecommunications Act of 1996, likewise could not support the Commission's action because the Commission was bound in *Comcast* by a prior determination that section 706 did not constitute such a grant of authority. *Id.* at 658-59.

[71] *Broadband Framework NOI*, 25 FCC Rcd at 7867, para. 1.

telecommunications service with forbearance from most Title II obligations.[72] The *Notice of Inquiry* sought comment on both wired and wireless broadband Internet services, "as well as on other factual and legal issues specific to . . . wireless services that bear on their appropriate classification."[73]

67. In December 2010, the Commission adopted the *Open Internet Order*,[74] a codification of the policy principles contained in the *Internet Policy Statement*. The *Open Internet Order* was based on broadly accepted Internet norms and the Commission's long regulatory experience in preserving open and dynamic communications networks.[75] The *Order* adopted three fundamental rules governing Internet service providers: (1) no blocking; (2) no unreasonable discrimination; and (3) transparency.[76] The no-blocking rule and no-unreasonable discrimination rules prevented broadband service providers from deliberately interfering with consumers' access to lawful content, applications, and services, while the transparency rule promoted informed consumer choice by requiring disclosure by service providers of critical information relating to network management practices, performance, and terms of service.[77]

68. The antidiscrimination rule contained in the *Open Internet Order* operated on a case-by-case basis, with the Commission evaluating the conduct of fixed broadband service providers based on a number of factors, including conformity with industry best practices, harm to competing services or end users, and impairment of free expression.[78] This no unreasonable discrimination framework applied to commercial agreements between fixed broadband service providers and third parties to prioritize transmission of certain traffic to their subscribers.[79] The *Open Internet Order* also specifically addressed paid prioritization arrangements.[80] It did not entirely rule out the possibility of such agreements, but made clear that such "pay for priority" deals and the associated "paid prioritization" network practices were likely to be problematic in a number of respects. Paid prioritization "represented a significant departure from historical and current practice" that threatened "great harm to innovation" online, particularly in connection with the market for new services by edge providers.[81] Paid priority agreements were also viewed as a threat to non-commercial end users, "including individual bloggers, libraries, schools, advocacy organizations, and other speakers" who would be less able to pay for priority service.[82] Finally, paid prioritization was seen giving fixed broadband providers "an incentive to limit the quality of service provided to non-prioritized traffic."[83] As a result of these concerns, the Commission explicitly stated in the *Open Internet Order* that it was "unlikely that pay for priority would satisfy the 'no unreasonable discrimination' standard."[84]

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[72] *Id.* at 7867, para. 2.

[73] *Id.*

[74] *2010 Open Internet Order*, 25 FCC Rcd 17905.

[75] *Id.* at 17906, para. 1; *2014 Open Internet NPRM*, 29 FCC Rcd at 5568, para. 21.

[76] *2010 Open Internet Order*, 25 FCC Rcd at 17906, para. 1.

[77] *Id.*

[78] *Id.* at 17946, paras. 74-75.

[79] *Id.* at 17947, para. 76.

[80] *See infra* Section C.1.c.

[81] *Id.*

[82] *Id.*

[83] *Id.*

[84] *Id.*

69. In order to maintain flexibility, the Commission tailored the rules contained in the *Open Internet Order* to fit the technical and economic realities of the broadband ecosystem. To this end, the restrictions on blocking and discrimination were made subject to an exception for "reasonable network management," allowing service providers the freedom to address legitimate needs such as avoiding network congestion and combating harmful or illegal content.[85] Additionally, in order to account for then-perceived differences between the fixed and mobile broadband markets, the *Open Internet Order* exempted mobile service providers from the anti-discrimination rule, and only barred mobile providers from blocking "consumers from accessing lawful websites" or "applications that compete with the provider's voice or video telephony services."[86] Lastly, the *Open Internet Order* made clear that the rules did not prohibit broadband providers from offering specialized services such as VoIP; instead, the Commission announced that it would continue to monitor such arrangements to ensure that they did not pose a threat to Internet openness.[87]

70. Verizon subsequently challenged the *Open Internet Order* in the U.S. Court of Appeals for the D.C. Circuit, arguing, among other things, that the *Open Internet Order* exceeded the Commission's regulatory authority and violated the Act.[88] In January 2014, the D.C. Circuit upheld the Commission's determination that section 706 of the Telecommunications Act of 1996 granted the Commission authority to regulate broadband Internet service providers,[89] and that the Commission had demonstrated a sound policy justification for the *Open Internet Order*. Specifically, the court sustained the Commission's findings that "absent rules such as those set forth in the *Open Internet Order*, broadband providers represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment."[90]

71. Despite upholding the Commission's authority and the basic rationale supporting the *Open Internet Order*, the court struck down the no-blocking and antidiscrimination rules as at odds with section 3(51) of the Communications Act, holding that it prohibits the Commission from exercising its section 706 authority to impose common carrier regulation on a service not classified as a "telecommunications service," and section 332(c)(2), which prohibits common carrier treatment of "private mobile services."[91] The D.C. Circuit vacated the no-blocking and antidiscrimination rules because it found that they impermissibly regulated fixed broadband providers as common carriers,[92] which conflicted with the Commission's prior classification of fixed broadband Internet access service as

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[85] 47 C.F.R. § 8.5.

[86] *Id.*

[87] *2010 Open Internet Order*, 25 FCC Rcd at 17928, para. 30, 17966, para. 114.

[88] *Verizon*, 740 F.3d 623.

[89] *Id.* at 635-42.

[90] *Id.* at 645.

[91] *Id.* at 656-59. Common carriage, which applies to certain entities like telephone service providers, imposes restrictions on the degree to which a service provider can enter into individualized agreements with similarly-situated customers. *Id.* at 651-52.

[92] *Verizon*, 740 F.3d at 655-58 (vacating the Commission's rule prohibiting "unreasonable discrimination" by fixed broadband providers on the theory that it "so limited broadband providers' control over edge providers' transmissions that [it] constitute[d] common carriage *per se*" and finding that the no-blocking rules "would appear on their face" to impose common carrier obligations on fixed and mobile broadband providers); *see also 2014 Open Internet NPRM*, 29 FCC Rcd at 5600-01, para. 114.

an "information service" rather than a telecommunications service.[93] Likewise, the court found that the no-blocking rule as applied to mobile broadband conflicted with the Commission's earlier classification of mobile broadband service as a private mobile service rather than a "commercial mobile service."[94] The *Verizon* court held that the "no unreasonable discrimination" standard adopted in the *Open Internet Order* was insufficiently distinguishable from the "nondiscrimination" standard applicable to common carriers.[95] Central to the court's rationale was its finding that, as formulated in the *Open Internet Order*, both rules improperly limited fixed broadband Internet access providers' ability to engage in "individualized bargaining."[96]

72. Following the D.C. Circuit's ruling, on May 15, 2014 the Commission issued a Notice of Proposed Rulemaking (*2014 Open Internet NPRM*) to respond to the lack of conduct-based rules to protect and promote an open Internet following the D.C. Circuit's opinion in *Verizon v. FCC*.[97] The Commission began the NPRM with a fundamental question: "What is the right public policy to ensure that the Internet remains open?"[98] While the NPRM put forth various proposals, it sought broad comment on alternative paths to the right public policy solution—including areas such as the proper scope of the rules; the best ways to define, prevent, and treat violations of practices that may threaten an open Internet (including paid prioritization); enhancements to the transparency rule; and the appropriate source of legal authority to support new open Internet rules.[99]

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[93] *Verizon*, 740 F.3d at 650; *see also United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, WC Docket No. 06-10, Memorandum Opinion and Order, 21 FCC Rcd 13281 (2006) (*BPL-Enabled Broadband Order*); *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with Regard to Broadband Services Provided via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises; Consumer Protection in the Broadband Era*, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14855, para. 1 (2005) (*Wireline Broadband Classification Order*); *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-785, CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4801, para. 4 (2002) (*Cable Modem Declaratory Ruling*), *aff'd*, *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

[94] *Verizon*, 740 F.3d at 650; *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No. 07-53, Declaratory Ruling, 22 FCC Rcd 5901 (2007) (*Wireless Broadband Classification Order*).

[95] *Verizon*, 740 F.3d at 656.

[96] In making its determination, the *Verizon* court relied on a previous decision in which it upheld the Commission's data roaming requirements against a common carrier challenge. *Cellco P'ship v. FCC*, 700 F.3d 534 (D.C. Cir. 2012). The *Verizon* court emphasized that, unlike the data roaming rules at issue in *Cellco*, which explicitly left room for individualized negotiations, the *Open Internet Order* did not attempt to "ensure that [the] reasonableness standard remains flexible." *Cellco*, 700 F.3d at 548; *Verizon*, 740 F.3d at 657.

[97] *See generally 2014 Open Internet NPRM*, 29 FCC Rcd 5561.

[98] *Id.* at 5563, para. 2.

[99] *Id.* at 5563, para 4. The Commission proposed to "retain the definitions and scope of the 2010 rules," adopting the text of the 2010 no-blocking rule under a revised rationale, and enhancing the transparency rule that remained in place after *Verizon*. *Id*. at 5564-65, para. 10. The *2014 Open Internet NPRM* also proposed to add a separate layer

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73. The Commission took many steps to facilitate public engagement in response to the *2014 Open Internet NPRM*—including the establishment of a dedicated email address to receive comments, a mechanism for submitting large numbers of comments in bulk via a Comma Separated Values (CSV) file, and the release of the entire record of comments and reply comments as Open Data in a machine-readable format, so that researchers, journalists, and other parties could analyze and create visualizations of the record.[100] In addition, Commission staff hosted a series of roundtables covering a variety of topics related to the open Internet proceeding, including events focused on different policy approaches to protecting the open Internet,[101] mobile broadband,[102] enforcement issues,[103] technology,[104] broadband economics,[105] and the legal issues surrounding the Commission's proposals.[106]

74. The public seized on these opportunities to comment, submitting an unprecedented 3.7 million comments by the close of the reply comment period on September 15, 2014, with more submissions arriving after that date.[107] This record-setting level of public engagement reflects the vital nature of Internet openness and the importance of our getting the answer right in this proceeding. Quantitative analysis of the comment pool reveals a number of key insights. For example, by some

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of protection against anti-competitive conduct by service providers that would otherwise be permissible under the no-blocking rule. This new rule would require that service providers "adhere to an enforceable legal standard of commercially reasonable practices" in the provision of broadband Internet access service. *Id*.

[100] Dr. David A. Bray, FCC Chief Information Officer, Official FCC Blog, *An Update on the Volume of Open Internet Comments Submitted to the FCC* (Sept. 17, 2014), http://www.fcc.gov/blog/update-volume-open-internet-comments-submitted-fcc; Dr. David A. Bray, FCC Chief Information Officer, Official FCC Blog, *An Additional Option for Filing Open Internet Comments* (Sept. 11, 2014), http://www.fcc.gov/blog/additional-option-filing-open-internet-comments; Gigi B. Sohn, Special Counsel for External Affairs, Office of the Chairman, Official FCC Blog, *FCC Makes Open Internet Comments More Accessible to Public* (August 5, 2014), http://www.fcc.gov/blog/fcc-makes-open-internet-comments-more-accessible-public.

[101] Open Internet Roundtable, *Policy Approaches to Ensure an Open Internet*, Sept. 16, 2014 (recording *available at* http://www.fcc.gov/events/open-internet-roundtable-policy-approaches).

[102] Open Internet Roundtable, *Mobile Broadband and the Open Internet*, Sept. 16, 2014 (recording *available at* http://www.fcc.gov/events/open-internet-roundtable-mobile-broadband).

[103] Open Internet Roundtable, *Effective Enforcement of Open Internet Requirements*, Sept. 19, 2014 (recording *available at* http://www.fcc.gov/events/open-internet-roundtable-technological-aspects).

[104] Open Internet Roundtable, *Technological Aspects of an Open Internet*, Sept. 19, 2014 (recording *available at* http://www.fcc.gov/events/open-internet-roundtable-technological-aspects).

[105] Open Internet Roundtable, *Economics of Broadband: Market Successes and Market Failures*, Oct.2, 2014 (recording *available at* http://www.fcc.gov/events/open-internet-roundtable-economics).

[106] Open Internet Roundtable, *Internet Openness and the Law*, Oct. 7, 2014 (recording *available at* http://www.fcc.gov/events/open-internet-roundtable-law).

[107] Gigi B. Sohn, Special Counsel for External Affairs, Office of the Chairman, Official FCC Blog, *FCC Releases Open Internet Reply Comments to the Public* (Oct. 22, 2014, updated Dec. 23, 2014), http://www.fcc.gov/blog/fcc-releases-open-internet-reply-comments-public. In order to accommodate this unprecedented level of public involvement, both the comment and reply comment periods were extended via public notice. *See Wireline Competition Bureau Will Treat as Timely Filed Any Comments Filed in Response to the Open Internet Notice of Proposed Rulemaking and the Framework for Broadband Internet Access Service Refreshing the Record Public Notice if Filed by July 18, 2014*, GN Docket Nos. 10-127, 14-28, Public Notice, 29 FCC Rcd 8335 (Wireline Comp. Bur. 2014); *Wireline Competition Bureau Extends Deadline for Filing Reply Comments in the Open Internet and Framework for Broadband Internet Service Proceedings*, GN Docket Nos. 14-28, 10-127, Public Notice, 29 FCC Rcd 9714 (Wireline Comp. Bur. 2014).

estimates, nearly half of all comments received by the Commission were unique.[108] While there has been some public dispute as to the percentage of comments taking one position or another, it is clear that the majority of comments support Commission action to protect the open Internet.[109] Comments regarding the continuing need for open Internet rules, their legal basis, and their substance formed the core of the overall body of comments. In particular, support for the reclassification of broadband Internet access under Title II, opposition to fast lanes and paid prioritization, and unease regarding the market power of broadband Internet access service providers were themes frequently addressed by commenters.[110] In offering this summary, we do not mean to overlook the diversity of views reflected in the impressively large record in this proceeding. Most of all, we are grateful to the public for using the power of the open Internet to guide us in determining how best to protect it.

B. The Continuing Need for Open Internet Protections

75. In its remand of the Commission's *Open Internet Order*, the D.C. Circuit affirmed the underlying basis for the Commission's open Internet rules, holding that "the Commission [had] more than adequately supported and explained its conclusion that edge provider innovation leads to the expansion and improvement of broadband infrastructure."[111] The court also found "reasonable and grounded in substantial evidence" the Commission's finding that Internet openness fosters the edge provider innovation that drives the virtuous cycle.[112] The record on remand continues to convince us that broadband providers—including mobile broadband providers—have the incentives and ability to engage in practices that pose a threat to Internet openness, and as such, rules to protect the open nature of the Internet remain necessary. Today we take steps to ensure that the substantial benefits of Internet openness continue to be realized.

1. An Open Internet Promotes Innovation, Competition, Free Expression, and Infrastructure Deployment

76. In the *2014 Open Internet NPRM*, we sought comment on and expressed our continued commitment to an important principle underlying the Commission's prior policies—that the Internet's openness promotes innovation, investment, competition, free expression, and other national broadband goals.[113] The record before us convinces us that these findings, made by the Commission in 2010 and upheld by the D.C. Circuit, remain valid. If anything, the remarkable increases in investment and

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[108] Knight Foundation, Decoding the Net Neutrality Debate at 14 (2014), http://www.knightfoundation.org/features/netneutrality/ (Knight Foundation, Decoding the Net Neutrality Debate); *see also* Bob Lannon & Andrew Pendleton, *What Can We Learn From 800,000 Public Comments on the FCC's Net Neutrality Plan?* (Sept. 2, 2014), http://sunlightfoundation.com/blog/2014/09/02/what-can-we-learn-from-800000-public-comments-on-the-fccs-net-neutrality-plan/.

[109] An initial analysis of 800,000 comments performed by the Sunlight Foundation estimated that "less than 1 percent of comments were clearly opposed to net neutrality." Bob Lannon & Andrew Pendleton, *What Can We Learn From 800,000 Public Comments on the FCC's Net Neutrality Plan?* (Sept. 2, 2014), http://sunlightfoundation.com/blog/2014/09/02/what-can-we-learn-from-800000-public-comments-on-the-fccs-net-neutrality-plan/. A subsequent study of reply comments found that "[n]on-form-letter submissions had a similar sentiment distribution as comments in the first round, at less than 1% opposed to net neutrality." Andrew Pendleton & Bob Lannon, *One Group Dominates the Second Round of Net Neutrality Comments* (Dec. 16, 2014), http://sunlightfoundation.com/blog/2014/12/16/one-group-dominates-the-second-round-of-net-neutrality-comments/.

[110] Knight Foundation, Decoding the Net Neutrality Debate at 15.

[111] *Verizon*, 740 F.3d at 644.

[112] *Id.*

[113] *2014 Open Internet NPRM*, 29 FCC Rcd at 5570, para. 25.

innovation seen in recent years—while the rules were in place—bear out the Commission's view.[114] For example, in addition to broadband infrastructure investment,[115] there has been substantial growth in the digital app economy, video over broadband, and VoIP, as well as a rise in mobile e-commerce.[116] Overall

[114] *See, e.g.*, AARP Comments at 9 (explaining that pro-innovation and pro-competition regulatory certainty is needed to protect the exponential economic growth and economic benefits enabled by the Internet); Bright House Networks (Bright House) Comments at 1-2 (discussing the positive trend in investment and enhancement of Internet access services and competitive choices that took place under the prior open Internet rules); Communications Workers of America & National Association for the Advancement of Colored People (CWA & NAACP) Comments at 4 ("The 'virtuous circle'. . . has led to nearly $230 billion in capital expenditures by the leading network and edge providers over the three-year period since the *Open Internet Order* took effect (2011 to 2013). Network providers were responsible for a full 84 percent of these capital expenditures, or $193 billion."); Internet Innovation Alliance Reply at 7 (explaining that private capital investment in broadband networks has also grown under the open Internet rules); Online Publishers Association Comments at 3-4 ("For content innovation to continue flourishing online . . . the Commission should, consistent with the *2010 Open Internet Order*, adopt open Internet principles that continue to encourage investment and innovation in content creation. . . .").

[115] In the *2015 Broadband Progress Report*, the Commission explained that "[b]roadband networks continue to grow due to significant investments by private industry. Some reports indicate that broadband providers invest tens of billions of dollars each year to further extend the reach of their networks, with providers spending a total $1.3 trillion since 1996 and $75 billion in 2013 alone." *2015 Broadband Progress Report* at para. 139. Additionally, the Commission noted that "[f]rom December 2011 to December 2013, Americans without access to a fixed 25 Mbps/3 Mbps broadband service or higher declined approximately 11 percentage points for the United States as a whole, declined 12 percentage points in rural areas, and declined 11 percentage points in urban areas." *Id.* at para. 84. *See also, e.g.*, AT&T Comments at 9 ("U.S. investment in broadband networks shows no signs of slowing: USTelecom reports that broadband capital expenditures rose from $64 billion in 2009 to $68 billion in 2012. AT&T has [devoted] more than $20 billion annually to capital investment."); CenturyLink Comments at 4-5 (stating that "AT&T, Verizon, and CenturyLink, alone, report annual capital investment (of which the vast majority is for broadband network build-out) over the last three years in the approximate average amounts of $20 billion, $16 billion, and $3 billion, respectively. On the cable side, Comcast, Time Warner and Charter report annual broadband network investment of approximate average amounts of $5 billion, $3 billion, and $2 billion, respectively, over this same time period . . . . Moreover, a University of Pennsylvania report shows that per capita network investment in the United States is more than twice that of Europe."); NCTA Comments at 7-8 ("Broadband providers in the U.S. have invested an astounding $1.2 trillion in private capital since 1996 to develop and deploy advanced broadband networks. Over the past two decades, the broadband industry has invested an average of $70 billion a year in our nation's wired and wireless broadband networks. And this investment is only accelerating; in fact, since 2012, broadband providers in the United States have laid more high-speed fiber cables than in any similar period since 2000."); Public Knowledge Comments at 25 ("[I]n June 2013, the number of [wireless] connections with downstream speeds of at least 10 Mbps increased by 118% over June 2012, to 103 million connections, including 45 million mobile connections. The most recent FCC data on Internet access service shows that the number of mobile Internet subscription connections with speeds over 200 kbps in at least one direction increased by 18% year over year to 181 million.").

[116] *See, e.g.*, Internet Innovation Alliance Reply at 7; Iridescent Networks Comments at 5 (explaining that "[t]he spread of mobile broadband and the extensive usage on the mobile networks is increasing at incredibly accelerating rates"); Massachusetts Department of Telecommunications and Cable (MDTC) Comments at 2 (noting that according to the Census Bureau of the U.S. Department of Commerce, "there was an estimated $71.2 billion dollars in retail e-commerce sales in the first quarter of 2014"); Roku Comments at iv, 3 & n.3 (stating that "Internet video traffic [was] estimated at 66 percent of all traffic in 2013 and expected to rise to nearly 79 percent in just four years" and that "the number of Americans that most often stream shows is up three percent since 2012, and that nearly a quarter of Americans say that they watch more streaming television than they did a year ago"); Telecommunications Industry Association (TIA) Comments at 8 (Regarding VoIP, "the number of residential VoIP subscribers through cable [rose] 10.1 percent in 2013 to 25 million. The non-cable VoIP market more than doubled between 2009 and 2012. The overall residential VoIP market will increase from 35.9 million subscribers in 2013 to 46.8 million in 2017."); Writers Guild of America, West (WGAW) Comments at 6 ("The number of online videos viewed each

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Internet adoption has also increased since 2010.[117] Both within the network and at its edges, investment and innovation have flourished while the open Internet rules were in force.

77. The record before us also overwhelmingly supports the proposition that the Internet's openness is critical to its ability to serve as a platform for speech and civic engagement,[118] and that it can help close the digital divide by facilitating the development of diverse content, applications, and services.[119] The record also supports the proposition that the Internet's openness continues to enable a "virtuous [cycle] of innovation in which new uses of the network—including new content, applications, services, and devices—lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses."[120] End users experienced the

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month by Americans has increased from 7.2 billion in January of 2007 to 52.4 billion in December of 2013. Meanwhile, the segment of Americans who watch or download videos has grown from 69% of adult internet users in 2009 to 78% in 2013.").

[117] *See, e.g.*, Internet Innovation Alliance Reply at 7 ("In January, the well-respected Pew Center noted that 87 percent of Americans now use the Internet, up 8 percent from 2010, marking another 'explosive adoption' of Internet usage.") (citing Susannah Fox and Lee Rainie, *The Web at 25 in the U.S.* 4, Pew Research Internet Project (2014)); *see also 2015 Broadband Progress Report* at para. 92 (explaining that from December 31, 2011 to December 31, 2013 "[a]doption grew 23 percentage points for fixed 25 Mbps/3 Mbps broadband service or higher (7 percent to 30 percent), 20 percentage points for fixed 3 Mbps/768 kbps service or higher (45 percent to 65 percent) and 6 percentage points for fixed 768 kbps/200 kbps service or higher (68 percent to 74 percent)").

[118] *See, e.g.*, Asian Americans Advancing Justice (AAJC) Comments at 1-2 (explaining that a free and open Internet is critical for a variety of reasons including: "level[ing] the playing field for free speech, including for small and marginalized communities [and] empower[ing] our community to organize politically and promote civic engagement"); American Civil Liberties Union (ACLU) Comments at 2 (arguing that "[t]he equitable provision of high quality access to a free and open Internet, and especially the closing of the digital divide, represents one of the most important free speech challenges of the information age. As information technology advances apace, the meaningful exercise of our constitutional rights – including the freedoms of speech, assembly, press and the right to petition government – has become literally dependent on broadband internet access"); Open Media and Information Companies Initiative (Open MIC) Comments at 3 (noting that "Open Internet principles also promote free speech, civic participation, democratic engagement and marketplace competition, as well as robust broadband adoption and participation in the Internet community by minorities and other socially and economically disadvantaged groups").

[119] *See, e.g.*, AOL Comments at 2 (explaining that "[t]he Internet's openness has fostered innovation and investment—both in advancements in network deployment and the services that ride upon them—creating . . . a virtuous circle, where richer and more diverse content on the 'edge' jump-starts demand, which brings about infrastructure investment, which brings about even richer and more diverse content"); CWA and NAACP Comments at 1 ("Preserving an open and free Internet consistent with the need to promote job-creating investment and closing the digital divide in our nation's high speed networks is critical to safeguard our nation's economic, social, and democratic fabric and future."); European Digital Rights Comments at 2 (warning that "[a]n end to net neutrality in the USA will come at severe costs to innovation and competition, privacy and freedom of communication"); Online Publishers Association Comments at 3-4 ("For content innovation to continue flourishing online . . . and for broadband to serve more social objective[s], the Commission should adopt open Internet principles that continue to encourage investment and innovation in content creation, and ensure that the Internet is an open platform that supports consumer choice and the open exchange of ideas and information.").

[120] *See 2010 Open Internet Order*, 25 FCC Rcd at 17910-11, para. 14. *See also, e.g.*, Common Cause Comments at 2 (noting that "[i]ncreased broadband adoption and new service offerings demonstrate that Open Internet protections foster the 'virtuous circle' of innovation, generating both consumption and new discourse, driving additional investment and yet more creative applications"); Comcast Comments at 2 (explaining that substantial benefits such as economic growth, innovation, competition, free expression, and broadband investment and deployment are "closely tied to the Internet's openness, which enables a 'virtuous circle' of innovation"); Higher Education and Libraries Comments at 5 (explaining that Internet openness is an essential driver of the "virtuous circle," and "[t]he unimpeded flow of knowledge, information, and interaction across the Internet enables the circle of innovation, user
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benefits of Internet openness that stemmed from the Commission's 2010 open Internet rules—increased consumer choice, freedom of expression, and innovation.[121]

2. Broadband Providers Have the Incentive and Ability to Limit Openness

78. Broadband providers function as gatekeepers for both their end user customers who access the Internet, and for various transit providers, CDNs, and edge providers attempting to reach the broadband provider's end-user subscribers.[122] As discussed in more detail below, broadband providers (including mobile broadband providers) have the economic incentives and technical ability to engage in practices that pose a threat to Internet openness by harming other network providers, edge providers, and end users.

a. Economic Incentives and Ability

79. In the *2014 Open Internet NPRM*, we sought to update the record with information about new and continuing incentives for broadband providers to limit Internet openness. As explained in detail in the *Open Internet Order*, broadband providers not only have the incentive and ability to limit openness, but they had done so in the past.[123] The D.C. Circuit found that the Commission "adequately supported

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demand, and subsequent broadband expansion that have generated the dramatic social, cultural, and economic benefits acknowledged by the Commission, the courts, and the nation as a whole"); Online Publishers Association Comments at 1 ("An open Internet enables innovators to create and offer new content, applications and services, and it allows development and distribution of new technologies by a broad range of sources, including broadband providers that operate the network."); WTA – Advocates for Rural Broadband (WTA) Comments at 1 (arguing that "Internet openness will be promoted and enhanced as service providers are encouraged and enabled to invest in the deployment of higher and higher broadband capacities that enable their customers to obtain faster and more affordable access to new content, applications and services").

[121] *2014 Open Internet NPRM*, 29 FCC Rcd at 5570, para. 25; *see also, e.g.*, ACLU Comments at 2 ("The equitable provision of high quality access to a free and open internet, and especially the closing of the digital divide, represents one of the most important free speech challenges of the information age. As information technology advances apace, the meaningful exercise of our constitutional rights- including the freedoms of speech, assembly, press and the right to petition government – has become literally dependent on broadband internet access."); Al Franken, Edward J. Markey, Bernie Sanders, Ben Cardin, Sheldon Whitehouse, Cory Booker, Kirsten Gillibrand, Charles E. Schumer, Richard Blumenthal, Elizabeth Warren, and Ron Wyden (US Senators) Comments at 1 ("An open Internet has become the world's most successful platform for innovation, job-creation and entrepreneurialism. An open Internet enables freedom of expression and the sharing of ideas around the world. An open Internet is driving economic growth throughout the United States."); Comcast Comments at 2 (explaining that substantial benefits such as economic growth, innovation, competition, free expression, and broadband investment and deployment are "closely tied to the Internet's openness, which enables a 'virtuous circle' of innovation"); Electronic Frontier Foundation (EFF) Comments at 1 ("An open, neutral, and fast Internet has helped spark an explosion of free expression, innovation, and political change.").

[122] *See*, *e.g.*, COMPTEL Comments at 2-3 (explaining that broadband providers serve as gatekeepers to transit providers and CDNs that deliver content to the broadband providers' end users); Open Technology Institute at the New America Foundation and Benton Foundation (OTI) Comments at 11 ("[V]ertical integration, which provides greater incentive to block competitors, and . . . increasing horizontal consolidation, . . . increases the power of large ISPs and their resulting leverage as gatekeepers."); Smithwick & Belendiuk Comments at 2 ("A handful of gatekeepers, the Internet Service Providers ('ISPs'), control access to broadband customers."); Vonage Comments at 16 (stating that "concentration in the broadband market exacerbates broadband providers' ability to act as gatekeepers and their natural incentive to favor their own services over competitive edge services").

[123] *See 2010 Open Internet Order*, 25 FCC Rcd at 17915-26, paras. 20-37. As the Commission explained in the *Open Internet Order*, examples such as the Madison River case, the Comcast-Bit Torrent case, and various mobile wireless Internet providers restricting customers' use of competitive payment applications, competitive voice applications, and remote video applications, indicate that broadband providers have the technical ability to act on
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and explained" that, absent open Internet rules, "broadband providers represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment."[124] The record generated in this proceeding convinces us that the Commission's conclusion in the *Open Internet Order*—that providers of broadband have a variety of strong incentives to limit Internet openness—remains valid today.

80. Broadband providers' networks serve as platforms for Internet ecosystem participants to communicate, enabling broadband providers to impose barriers to end-user access to the Internet on one hand, and to edge provider access to broadband subscribers on the other. This applies to both fixed and mobile broadband providers. Although there is some disagreement among commenters, the record provides substantial evidence that broadband providers have significant bargaining power in negotiations with edge providers and intermediaries that depend on access to their networks because of their ability to control the flow of traffic into and on their networks.[125] Another way to describe this significant bargaining power is in terms of a broadband provider's position as gatekeeper—that is, regardless of the competition in the local market for broadband Internet access, once a consumer chooses a broadband provider, that provider has a monopoly on access to the subscriber.[126] Many parties demonstrated that both mobile and fixed broadband providers are in a position to function as a gatekeeper with respect to edge providers.[127] Once the broadband provider is the sole provider of access to an end user, this can

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incentives to harm the open Internet. *Id.* at 17925, para. 35 & n.107. The D.C. Circuit also found that these examples buttressed the Commission's conclusion that broadband providers' incentives and ability to restrict Internet traffic could interfere with the Internet's openness. *Verizon*, 740 F.3d at 648-49. *See also, e.g.*, EFF Comments at 23 (noting that AT&T blocked Apple's FaceTime iPhone and iPad applications over AT&T's mobile data network in 2012); WGAW Comments at 14 (describing the situation where Comcast exempted its own online video service from data caps when streamed to an Xbox). It is not surprising that, during a decade in which the Commission vowed to keep the Internet open, that Commission policy served as a deterrent to additional bad acts.

[124] *Verizon*, 740 F.3d at 645.

[125] *See, e.g.*, Internet Association Comments at 13 ("Broadband Internet access providers have long had the ability to engineer choke points into their networks in order to slow traffic from certain sources. Advances in network technologies, however, have provided them with an unprecedented ability to discriminate among sources and types of Internet traffic in real time and with little cost."); Roku Comments at 14 (explaining that market power of broadband providers allows them to favor certain content with faster delivery or higher performance); AARP Comments at 47 ("The market power possessed by broadband providers in retail markets for broadband Internet access also translates into market power with regard to edge providers who need to reach their subscribers/users."); Consumer Federation of America (CFA) Comments at 3 ("Competition is much weaker in the network segment of the digital platform than in the edge segments, which means network owners face less pressure to innovate; have the ability to influence industrial structure to favor their interests at the expense of the public interest; can use vertical leverage (where they are integrated) to gain competitive advantage over independent edge entrepreneurs; and have the ability to extract rents, where they possess market power or where switching costs are high."). We are not persuaded by arguments to the contrary, as explained *infra*. *But see* AT&T Comments at 18 ("[T]he Commission appears to misunderstand the technical capabilities of broadband Internet access providers. In particular, the Commission's assumption that providers have the ability to engage in end-to-end prioritization of Internet traffic is incorrect in the vast majority of cases."); CenturyLink Comments at 11 ("[B]roadband providers are not able to sustain broadband price increases above competitive levels. If they did so, customers would simply choose another option.").

[126] *See, e.g.*, *2014 Open Internet NPRM*, 29 FCC Rcd at 5576, para. 42 (citing the *2010 Open Internet Order*, 25 FCC Rcd at 17924-25, para. 34); Ad Hoc Telecommunications Users Committee (Ad Hoc) Comments at 7; Public Knowledge Comments at 18-19 (arguing that mobile broadband is not a substitute for fixed broadband services, so its increased adoption does not "change the essential points" about broadband providers' position as gatekeepers).

[127] *See, e.g.*, Mozilla Comments at 25; COMPTEL Comments at 23; Free Press Comments at 44. *But see* Letter from Kathleen Grillo, Senior Vice President, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, (continued….)

influence that network's interactions with edge providers, end users, and others. As the Commission and the court have recognized, broadband providers are in a position to act as a "gatekeeper" between end users' access to edge providers' applications, services, and devices and reciprocally for edge providers' access to end users. Broadband providers can exploit this role by acting in ways that may harm the open Internet, such as preferring their own or affiliated content, demanding fees from edge providers, or placing technical barriers to reaching end users.[128] Without multiple, substitutable paths to the consumer, and the ability to select the most cost-effective route, edge providers will be subject to the broadband provider's gatekeeper position.[129] The D.C. Circuit noted that the Commission "convincingly detailed" broadband providers' market position, which gives them "the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers," and further stated that the Commission reasonably explained that "this ability to act as a 'gatekeeper' distinguishes broadband providers from other participants in the Internet marketplace who have no similar 'control [over] access to the Internet for their subscribers and for anyone wishing to reach those subscribers.'"[130] The ability of broadband providers to exploit this gatekeeper role could be mitigated if consumers multi-homed (i.e., bought broadband service from multiple networks). However, multi-homing is not widely practiced and imposes

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Attach. at 18-23 (filed Jan. 15, 2015) (Verizon Jan.15, 2015 *Ex Parte* Letter) (arguing that the [gatekeeper] theory does not apply to mobile broadband); Letter from Jonathan Banks, Senior Vice President, Law & Policy, USTelecom, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2-3 (filed Feb. 18, 2015) (USTelecom Feb. 18, 2015 *Ex Parte* Letter) (arguing that the gatekeeper theory is inapplicable to broadband in general because the Commission made its original arguments on this theory in the context of voice services subject to a calling party network pays regime, and reliance on switching costs as a justification was irrelevant to those original findings).

[128] *See, e.g.*, Ad Hoc Comments at 8-9 (discussing the incentive of broadband providers to demand paid prioritization fees); Bauer, Clark & Claffy Reply at 4 ("Access ISPs presumptively have market power as a [gatekeeper], and can impose both technical and economic harms as part of a business negotiation, or favor their own higher-level services."); Microsoft Comments at 10 (explaining that broadband providers can use their power as gatekeepers "to pressure edge providers into entering such arrangements and demand increasingly higher rates and greater concessions from edge providers over time"); Netflix Comments at 12 (stating that its dispute with Comcast shows how a broadband provider can use its position as gatekeeper "to harm edge providers, its own customers, and the virtuous circle by discriminating at interconnection and peering points"); Roku Comments at 8 (noting that preferences for affiliated content pose imminent threats to consumer choice and competition); *see also infra* Section C.1.c; para. 81 (discussing the relationship between switching costs and broadband providers' gatekeeper position).

[129] *See, e.g.*, Ad Hoc Comments at 13; Bauer, Clark & Claffy Comments at 4 (arguing that one way to limit broadband providers' gatekeeper power is "to require ISPs to provide adequate means for edge providers and off-net users to reach their customers over interconnection and transit links").

[130] *See Verizon*,740 F.3d at 646 (quoting *2010 Open Internet Order*, 25 FCC Rcd at 17919, 17935, paras. 24, 50). We find, for example, that even though edge providers may possess bargaining power, they do not have the same ability as broadband providers to control the flow of traffic or block access to the Internet. *See, e.g.*, *2010 Open Internet Order*, 25 FCC Rcd at 17918, para. 24 & n.66 (explaining that a broadband provider can act as a gatekeeper even if some edge providers would have bargaining power in negotiations with broadband providers over access or prioritization fees). *See also infra* Section F.1-2. We note that Judge Silberman expressed concern over relying on the terminating monopoly and gatekeeper concepts because terminating monopolies are not largely discussed outside of Commission jurisprudence, and "[t]he gatekeeper effect is a tool that facilitates the exercise of market power over sellers; it is not market power itself." *Verizon*, 740 F.3d at 663 & n.7 (Silberman, J., concurring in part and dissenting in part). However, our reliance on these terms for our determinations today focuses on how this unique "gatekeeper" position of broadband providers in combination with other realities about broadband availability and access affects broadband providers' incentives and abilities to harm the open nature of the Internet. As explained further below, the Commission's discussion of these terms is especially important in combination with switching costs and limited retail broadband competition for fixed broadband. With respect to mobile, the presence of some additional retail competition is not enough to alter our conclusion here. *See infra* Section 3.

significant additional costs on consumers.[131] The gatekeeper role could also be mitigated if a consumer could easily switch broadband providers. But, as discussed further below, the evidence suggests otherwise.

81. The broadband provider's position as gatekeeper is strengthened by the high switching costs consumers face when seeking a new service. Among the costs that consumers may experience are: high upfront device installation fees; long-term contracts and early termination fees; the activation fee when changing service providers; and compatibility costs of owned equipment not working with the new service.[132] Bundled pricing can also play a role, as "single-product subscribers are four times more likely to churn than triple-play subscribers."[133] These costs may limit consumers' willingness and ability to switch carriers, if such a choice is indeed available.[134] Commenters also point to an information problem,

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[131] *See, e.g.*, Ad Hoc Comments at 12 (noting that "[a]t this point in time, there is no evidence to suggest that a sizable number of consumers actually procure Internet access service from multiple ISPs simultaneously or that they would be able to switch seamlessly from one ISP to another in order to receive content from a provider imposing restrictions or burdensome charges on edge providers"); Level 3 Comments at 3 ("[T]he largest mass-market retail ISPs stand in a uniquely favorable place in the Internet ecosystem: they control access to several million users who cannot be reached through alternate routing. In Internet terms, these mass-market customers are 'single-homed,' meaning they draw service from a single ISP. This contrasts with enterprise users, who are frequently 'multi-homed,' meaning that they can access the Internet through more than one ISP."). *But see* Layton Reply at 20-21 (arguing that pre-paid mobile services may be purchased in exchange for, or in supplement to, a family broadband plan, which is a form of multi-homing); Verizon Jan. 15, 2015 *Ex Parte* Letter Attach. at 29 (arguing that customers multi-home when purchasing both mobile wireless and fixed service, allowing consumers to "substitute across those providers"). However, many customers view fixed and mobile broadband services as distinct product offerings. *See supra* para. 9; *2015 Broadband Progress Report* at para. 120 ("We recognize that many households subscribe to both fixed and mobile services because they use fixed and mobile services in fundamentally different ways and, as such, view fixed and mobile services as distinct product offerings.") *and* Public Knowledge Comments at 18-19 (arguing that mobile broadband is not a substitute for fixed broadband services, so its increased adoption does not "change the essential points" about broadband providers' position as gatekeepers).

[132] *See, e.g.*, Access Comments at 15; Consumers Union Comments at 14; People of the State of Illinois and People of the State of New York (Illinois and New York) Comments at 11; Public Knowledge Comments at 17.

[133] *Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90, Katz Decl. at 28, n.57 (filed June 11, 2014) (quoting AT&T internal report).

[134] *See, e.g.*, Consumers Union Comments at 14 (referring to a January 2014 Consumer Reports article that reported that "high switching costs continue to serve as barriers to customers freely changing carriers"); *see also, e.g.*, ACLU Comments at 4 (explaining that although they present problems in both the mobile and fixed contexts, "concentration and consumer lock-in are particularly acute in the fixed broadband market"); EFF Comments at 1 (warning that "switching costs and consumer lock-in further undermine the ability of marketplace forces to prevent non-neutral practices"). In the *2015 Broadband Progress Report*, the Commission noted that approximately 55 million Americans live in areas unserved by terrestrial-fixed broadband meeting the 25 Mbps/3 Mbps benchmark. In addition, people living in rural and on Tribal lands are disproportionately lacking access to broadband at this increased benchmark speed. Data show that 25 Mbps/3 Mbps is available to 92 percent of Americans living in urban areas, 47 percent of Americans in rural areas, and 37 percent of Americans on Tribal lands. *2015 Broadband Progress Report* at 79. This data suggests that meaningful alternative broadband options may be largely unavailable to many Americans, further limiting the ability to switch providers. Based on the submissions from various commenters, it appears that between 65% and 70% of households have at most two options for high speed Internet access. *See, e.g.*, Common Cause Comments at 2; Access Comments at 14. When we look to the new standard articulated in the *2015 Broadband Progress Report*, the data suggest that only 12 percent of households have 3 or more options for 25 Mbps/3 Mbps broadband service; 27 percent of households have two provider options for this service; and 45 percent of households have only single provider option for these services. Approximately 16 percent of households reside in areas without a single provider of fixed broadband services. *See 2015 Broadband Progress Report* at 83.

whereby consumers are unsure about the causes of problems or limitations with their services—for example, whether a slow speed on an application is caused by the broadband provider or the edge provider—and as such consumers may not feel that switching providers will resolve their Internet access issues.[135] Additionally, consumers on unlimited data plans may be confused by slowed data speeds because broadband providers have not adequately communicated contractually-imposed data management practices and usage thresholds.[136] Switching costs are also a critical factor that negatively impacts mobile broadband consumers, in particular due to the informational uncertainties mentioned below, among other reasons.[137] Ultimately, when consumers face this kind of friction in switching to meaningful competitive alternatives, it decreases broadband provider' responsiveness to consumer demands and limits the provider's incentives to improve their networks.[138] Additionally, 45 percent of households have only a single provider option for 25 Mbps/3 Mbps broadband service, indicating that 45 percent of households do not have any choices to switch to at this critical level of service.[139]

82. Broadband providers may seek to gain economic advantages by favoring their own or affiliated content over other third-party sources.[140] Technological advances have given broadband providers the ability to block content in real time, which allows them to act on their financial incentives to do so in order to cut costs or prefer certain types of content.[141] Data caps or allowances, which limit the amount and type of content users access online, can have a role in providing consumers options and differentiating services in the marketplace, but they also can negatively influence customer behavior and the development of new applications.[142] Similarly, broadband providers have incentives to charge for

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[135] *See, e.g.*, Cogent Reply at 24-26 (advocating for enhanced disclosure requirements that would provide customers with information such as performance data for speeds of popular edge-provider content); Utilities Telecom Council Reply at 13 (explaining that "the unstructured and open nature of the Internet provides tremendous opportunities for innovation and growth, yet it also prevents end users from fully understanding the current or potential limitations of any particular service offering").

[136] *See, e.g.*, COMPTEL Comments at 18 (explaining that some carriers offering unlimited data plans may need to limit speeds of customers using more than 5GB of data per month); iClick2Media Comments at 2 (describing a concern that an end user may pay "for one thing and is given something else that is suppose[d] to be comparable but is not i.e. paying for an unlimited plan but throttling the End user['s] speed down if they reach a certain point").

[137] *See infra* paras. 97-99.

[138] *See, e.g.*, Consumers Union Comments at 13; *see also, e.g.*, ACLU Comments at 5 (arguing that the "logical corollary to this incentive and ability is the potential for broadband providers' to engage in content-based regulation of edge providers' applications, services, devices or programming").

[139] *2015 Broadband Progress Report* at para. 83.

[140] *See, e.g.*, Internet Association Comments at 15; Consumers Union Comments at 3 (agreeing that "vertically integrated providers can restrict access to affiliated content or block, degrade, or otherwise act contrary to open Internet principles with respect to delivery of unaffiliated online video to their broadband subscribers"); Roku Comments at 8 (noting that such preference for affiliated content poses imminent threats to consumer choice and competition); Vermont Public Service Board and Vermont Public Service Department (Vermont) Reply at 5 (warning that paid prioritization arrangements, for example, can allow broadband providers to "to skew the playing field in favor of their own preferred services, products, information, and partners"); OTI Comments at 28-29 (explaining that mobile carriers have demonstrated that they have the incentives and inclination to block or throttle to favor their own services).

[141] *See, e.g.*, Internet Association Comments at 3.

[142] *See* Public Knowledge Comments at 48; *see also* Consumers Union Reply at 2 (explaining that "even if providers do not block content outright, providers can still utilize their market power to harm consumers in more subtle ways, such as by lowering data caps or exempting their own services from such caps"); Roku Comments at 1-2 ("[T]hrottling is only the most transparent of a long list of discriminatory actions that an ISP with market power can undertake. To promote and protect an open Internet, the FCC's rules and policies must guard against a broader list of

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prioritized access to end users or degrade the level of service provided to non-prioritized content. When bandwidth is limited during peak hours, its scarcity can cause reliability and quality concerns, which increases broadband providers' ability to charge for prioritization.[143] Such practices could result in so-called "tolls" for edge providers seeking to reach a broadband provider's subscribers, leading to reduced innovation at the edge, as well as increased rates for end users, reducing consumer demand, and further disrupting the virtuous cycle.[144] Commenters expressed considerable concern regarding the harmful effects of paid prioritization on Internet openness.[145] Further, as discussed above, a broadband provider's incentive to favor affiliated content or the content of unaffiliated firms that pay for it to do so, to block or degrade traffic, to charge edge providers for access to end users, and to disadvantage non-prioritized transmission all increase when end users are less able to respond by switching to rival broadband providers.

83. In addition to the harms outlined above, broadband providers' behavior has the potential to cause a variety of other negative externalities that hurt the open nature of the Internet. Broadband providers have incentives to engage in practices that will provide them short term gains but will not adequately take into account the effects on the virtuous cycle. In the *Open Internet Order*, the Commission found that the unaccounted-for harms to innovation are negative externalities, and are likely to be particularly large because of the rapid pace of Internet innovation, and wide-ranging because of the role of the Internet as a general purpose technology.[146] Further, the Commission noted that a broadband provider may hesitate to impose costs on its own subscribers, but it will typically not take into account the effect that reduced edge provider investment and innovation has on the attractiveness of the Internet to end users that rely on other broadband providers—and will therefore ignore a significant fraction of the cost of forgone innovation.[147] The record supports our view that these negative externality problems have not disappeared, and in some cases, may be more prevalent.[148] In order to mitigate these negative results,

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discriminatory conduct that has the effect of restricting, degrading, or otherwise interfering with consumer access to lawfully available content or services."). For a more comprehensive discussion, *see infra* Section C.2.

[143] *See* Fiber to the Home Council Americas (FTTH) Comments at 4.

[144] *See, e.g.*, Microsoft Comments at 10 ("Preferential transmission arrangements are particularly concerning because broadband access providers can use their [gatekeeper position] to pressure edge providers into entering such arrangements and demand increasingly higher rates and greater concessions from edge providers over time."); Access Comments at 8 (commenting that with regard to prioritization, broadband providers have incentives that could lead to "invest[ing] in infrastructure to disproportionately improve the priority option, cease investment in infrastructure that helps the network as a whole, create artificial scarcity, or even degrade the quality of the current non-priority infrastructure to make prioritized options seem more attractive."); EFF Comments at 1 (noting that broadband providers "have economic incentives to leverage their ownership of the transmission infrastructure at the expense of the open and neutral Internet"); Media Alliance Comments at 2 (agreeing that there are "short-term incentives for network providers to block or disadvantage particular providers or classes of providers, charge for prioritized access to end users, or degrade or decline the level of service provided to non-prioritized content").

[145] *See infra* Section C.1.c.

[146] *2010 Open Internet Order* 25 FCC Rcd at 17919-20, para. 25.

[147] *Id.* at 17920, para. 25, n.68.

[148] *See, e.g.*, Senator Ron Wyden Comments at 6 ("The risks identified by the Commission in 2010 have not gone away; if anything, the Internet is even more important to social and economic interactions and the market conditions are even more threatening."); *see also* ACLU Comments at 7 (discussing the Commission's explanation of negative externalities in the *Open Internet Order*, and explaining that "[i]deally, competitive pressures would encourage demand growth at all points in the broadband market. Unfortunately, given the oligopolistic nature of the local broadband market, many providers can collect the overcharge represented by a paid prioritization or similar agreement while not taking the hit from lowered demand flowing from poorer or more expensive internet service.");
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the Commission needs to act to promote Internet openness.

84. A final point on this question of economic incentives and ability is worth noting. Broadband providers have the ability to act as gatekeepers even in the absence of "the sort of market concentration that would enable them to impose substantial price increases on end users."[149] We therefore need not consider whether market concentration gives broadband providers the ability to raise prices. The Commission came to this conclusion in the *Open Internet Order*, and we conclude the same here.[150] As the Commission noted in the *Open Internet Order*, threats to Internet-enabled innovation, growth, and competition do not depend on broadband providers having market power with respect to their end users. In *Verizon,* the court agreed, explaining that "broadband providers' ability to impose restrictions on edge providers simply depends on end users not being fully responsive to the imposition of such restrictions."[151] As we have concluded in this section, this remains true today.[152]

b. Technical Ability

85. As the Commission explained in the *Open Internet Order*, past instances of abuse indicate that broadband providers have the technical ability to act on incentives to harm the open Internet.[153] Broadband providers have a variety of tools at their disposal that can be used to monitor and regulate the flow of traffic over their networks—giving them the ability to discriminate should they choose to do so. Techniques used by broadband providers to identify and select traffic may include approaches based on packet payloads (using deep packet inspection), network or transport layer headers (e.g., port numbers or priority markings), or heuristics (e.g., the size, sequencing, and/or timing of packets).[154] Using these techniques, broadband providers may apply network practices to traffic that has a particular source or destination, that is generated by a particular application or by an application that belongs to a particular class of applications, that uses a particular application- or transport-layer protocol, or that is classified for special treatment by the user, application, or application provider.[155] Application-specific network practices depend on the broadband provider's ability to identify the traffic associated with particular uses of the network. Some of these application-specific practices may be reasonable

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Mozilla Comments at 21 (arguing that "[p]aid prioritization has a distinct degrading effect on other access service traffic, an effect that creates complex incentives for network operators. It also represents a visceral deviation from the end-to-end, best efforts history of the Internet, meaning that as a practical matter, it's impossible to understand ex ante the full effects and potential negative externalities that could arise.").

[149] *See Verizon*, 740 F.3d at 648 (citing *2010 Open Internet Order*, 25 FCC Rcd at 17923, para. 32).

[150] *See 2010 Open Internet Order*, 25 FCC Rcd at 17923, para. 32, n.87.

[151] *Verizon*, 740 F.3d at 648. We note further that, of course, our reclassification of broadband Internet access service as a "telecommunications service" subject to Title II below likewise does not rely on such a test or any measure of market power. Indeed, our reclassification decision is based on whether BIAS meets the statutory definition of a "telecommunications service," and not any additional economic circumstances.

[152] We note, however, that in areas where there are limited competitive alternatives, this may exacerbate other problems such as the ability to switch from one provider to another. *See 2015 Broadband Progress Report* at para. 83 (indicating that data show that only 12 percent of households have 3 or more options for 25 Mbps/3 Mbps broadband service; 27 percent of households have two provider options for this service; and 45 percent of households have only a single provider option for these services).

[153] *See supra* Section III.B.2.a.

[154] *See* Broadband Internet Technical Advisory Group, Real-Time Network Management of Internet Congestion at 19 (2013), http://www.bitag.org/documents/BITAG_-_Congestion_Management_Report.pdf (BITAG Congestion Report) (discussing which traffic is subject to congestion management).

[155] *Id.* at 19 (discussing application-based congestion management).

network management, e.g., tailored network security practices. However, some of these techniques may also be abused.[156] Deep packet inspection, for example, may be used in a manner that may harm the open Internet, e.g., to limit access to certain Internet applications, to engage in paid prioritization, and even to block certain content.[157] Similarly, traffic control algorithms can be abused, e.g., to give certain packets favorable placement in queues or to send packets along less congested routes in a manner contrary to end user preferences.[158] Use of these techniques may ultimately affect the quality of service that users receive, which could effectively force edge providers to enter into paid prioritization agreements to prevent poor quality of content to end users.

3. Mobile Broadband Services

86. We have discussed above the incentives and ability of broadband providers to act in ways that limit Internet openness, regardless of the specific technology platform used by the provider. A significant subject of discussion in the record, however, concerned mobile broadband providers specifically, and we therefore believe it is appropriate to address here the incentive and ability that these providers have to limit Internet openness. As the Commission noted in the *Open Internet Order*, "[c]onsumer choice, freedom of expression, end-user control, competition, and the freedom to innovate without permission are as important when end users are accessing the Internet via mobile broadband as via fixed."[159] The Commission noted that "there have been instances of mobile providers blocking certain third-party applications, particularly applications that compete with the provider's own offerings . . . ."[160] However, the Commission also noted the nascency of the mobile broadband industry,[161] citing the recent development of "app" stores,[162] and what it characterized at the time as "new business models for mobile broadband providers, including usage-based pricing."[163] Furthermore, the Commission at that time found that "[m]obile broadband speeds, capacity, and penetration [were] typically much lower than for fixed broadband" and noted that carriers had only begun to offer 4G service.[164]

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[156] *See* Jon Peha Comments at 3; NetAccess Futures Comments at 13-14 (noting that these mechanisms are "indispensable for network function or reasonable network management, [but all] of these mechanisms can also be abused, to the detriment of Open Internet principles").

[157] *See* Internet Association Comments at 14; *see also* Tumblr Reply at 6-7 (warning that "[w]hether broadband providers engage in blocking, discrimination, or access fees through deep packet inspection, or engage in functionally equivalent practices through underinvestment at points of interconnection, consumers and edge providers will still be harmed, and innovation and free expression will still be stifled"). *But see* NCTA Comments at 15 (claiming that "[e]ven if broadband providers had an incentive to degrade their customers' online experience in some circumstances, they have no practical ability to act on such an incentive").

[158] *See* NetAccess Futures Comments at 16; Jon Peha Comments at 3 (filed July 15, 2014) (explaining that "[m]ethods to discriminate among traffic classes once traffic has been categorized include separation of traffic into *separate real or virtual channels*, and use of *traffic control algorithms* for functions such as packet scheduling, packet dropping, or routing that discriminate") (emphasis in original); OTI Comments at 18 (arguing that "[i]t does not matter either to consumers or to applications providers if the carriers abuse their power through interference that takes advantage of deep packet inspection in routers in their network or through interconnection abuse—the resulting harms are the same").

[159] *2010 Open Internet Order*, 25 FCC Rcd 17956, para. 93.

[160] *Id*.

[161] *Id*. at 17956-57, para. 94.

[162] *Id*.

[163] *Id*.

[164] *Id.* at 17957, para. 95

87. Citing these factors, as well as greater consumer choice, "meaningful recent moves toward openness in and on mobile broadband networks," and the operational constraints faced by mobile broadband providers,[165] the Commission applied its open Internet rules to mobile broadband, but distinguished between fixed and mobile broadband in some regards: while it applied the same transparency rule to both fixed and mobile network providers, it adopted a different no-blocking standard for mobile broadband Internet access service, and excluded mobile broadband from the unreasonable discrimination rule. In the *2014 Open Internet NPRM*, the Commission tentatively concluded that it should maintain the same approach going forward, but recognized that there have been significant changes since 2010 in the mobile marketplace.[166] The Commission sought comment on whether those changes should lead it to revisit the treatment of mobile broadband services.[167]

88. Today, we find that changes in the mobile broadband marketplace warrant a revised approach. We find that the mobile broadband marketplace has evolved, and continues to evolve, but is no longer in a nascent stage. As discussed below, mobile broadband networks are faster, more broadly deployed, more widely used, and more technologically advanced than they were in 2010. We conclude that it would benefit the millions of consumers who access the Internet on mobile devices to apply the same set of Internet openness protections to both fixed and mobile networks.[168]

89. Network connection speed and data consumption have exploded. For 2010, Cisco reported an average mobile network connection speed of 709 kbps.[169] Since that time there has been massive expansion of mobile broadband networks, providing vastly increased download speeds. For 2013, Cisco reported an average mobile connection speed of 2,058 kbps.[170] This increase in speed is partially due to the deployment of faster network technologies. Currently, mobile broadband networks provide coverage and services using a variety of 3G and 4G technologies, including, most importantly, LTE.[171] As a consequence of the growing deployment of next generation networks, there has been an increase of more than 200,000 percent in the number of LTE subscribers, from approximately 70,000 in 2010[172] to over 140 million in 2014.[173] Concurrent with these substantial changes in mobile broadband deployment and download speeds, mobile data traffic has exploded, increasing from 388 billion MB in

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[165] *Id*.

[166] *2014 Open Internet NPRM*, 29 FCC Rcd at 5583, para. 62.

[167] *Id*.

[168] Although we adopt the same rules for both fixed and mobile services, we recognize that with respect to the reasonable network management exception, the rule may apply differently to fixed and mobile broadband providers. *See infra* Section D.4.

[169] Cisco, Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update 2010-2015 at 13 (2011).

[170] Cisco, *Cisco Visual Networking Index: Forecast Highlights* (2014), http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html. These connection speeds are inclusive of all types of devices, while speeds for smartphones may be higher. Cisco reported an average connection speed of 9,942 kbps for smartphones in 2013. *Id.*

[171] Long-Term Evolution (LTE) is a high-speed packet switched mobile broadband network technology. Starting in 2014, some operators introduced LTE-Advanced, mainly by using carrier aggregation and more capable devices.

[172] Telegeography, *US Remains at Forefront of LTE Service Adoption* (Mar. 15, 2012), https://www.telegeography.com/products/commsupdate/articles/2012/03/15/us-remains-at-forefront-of-lte-service-adoption/ (last visited Feb. 10, 2015).

[173] CTIA Blog, *Mobile Broadband: A Story of Dynamism and Transformation* (Jan. 9, 2015), http://blog.ctia.org/2015/01/09/dynamism/ (last visited Feb. 10, 2015).

2010 to 3.23 trillion MB in 2013.[174] AT&T reports that its wireless data traffic has grown 100,000 percent between 2007 and 2014 and 20,000 percent over the past five years.[175] T-Mobile states that "data usage continues to expand exponentially, with year-to-year increases of roughly 120 percent."[176]

90. As consumers use smartphones and tablets more, they increasingly rely on mobile broadband as a pathway to the Internet. The Internet Association argues that mobile Internet access is essential, since many Americans "are wholly reliant on mobile wireless for Internet access."[177] In addition, evidence shows that consumers in certain demographic groups, including low income and rural consumers and communities of color, are more likely to rely on mobile as their only access to the Internet.[178] Citing data from the Pew Research Center's Internet & American Life Project, OTI states that "[t]he share of Americans relying exclusively on their smartphone[s] to access the Internet is far higher among Hispanics, Blacks, and adults aged 18-29, and households earning less than $30,000 a year."[179] According to data from the National Health Interview Survey, 44 percent of households were "wireless-only" during January-June 2014, compared to 31.6 percent during January-June 2011.[180] These data also show that 59.1 percent of adults living in poverty reside in wireless-only households, relative to 40.8 percent of higher income adults.[181] Additionally, rural consumers and businesses often have access to fewer options for Internet service, meaning that these customers may have limited alternatives when faced with restrictions to Internet openness imposed by their mobile provider.[182] Furthermore, just as consumer reliance on mobile broadband has grown, edge providers increasingly rely on mobile broadband to reach

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[174] *Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 13-135, Seventeenth Report, 29 FCC Rcd 15311 (Wireless Tel. Bur. 2014) (*17th Mobile Wireless Report*); Robert F. Roche & Liz Dale, *Annual Wireless Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry* (June 2014).

[175] *Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993;Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 11-186, Sixteenth Report, 28 FCC Rcd 3700, 3910-11, para. 334 (Wireless Tel. Bur. 2013) (*16th Mobile Wireless Report*). *See* AT&T, *AT&T Adds High-Quality Spectrum to Support Customers' Growing Demand for Mobile Video and High-Speed Internet* (Jan. 30, 2015), http://about.att.com/story/att_adds_high_quality_spectrum_to_support_growing_demand_for_mobile_video_and_high_speed_internet.html.

[176] T-Mobile Reply at 5.

[177] Letter from Abigail Slater, Vice President Legal and Regulatory Policy, Internet Association to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Oct. 13, 2014).

[178] OTI Comments at 33-34.

[179] *Id.* at 33.

[180] Stephen J. Blumberg & Julian V. Luke, *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January-June 2014* at 5, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (Dec. 2014), http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201412.pdf.

[181] *Id.* at 2. Living in poverty is defined as being below the U.S. Census Bureau's household income poverty thresholds. Higher income is defined as having an income of 200 percent of the poverty threshold or greater. *Id.* at 7.

[182] *See 17th Mobile Wireless Report*, 29 FCC Rcd at 15338, para. 55 (presenting data that, as of January 2014, 92.0 percent of non-rural U.S. POPs lived in a census block covered by 4 or more mobile broadband providers, while the figure was 39.6 percent for rural U.S. POPs). One should note however, that the number of providers in a census block represent network coverage, which does not necessarily reflect the number of choices available to a particular individual or household. Coverage calculations based on Mosaik data, while useful for measuring developments in mobile wireless coverage, have certain limitations that likely overstate the extent of mobile wireless coverage. *See id.* at 15333, para. 45 n.69.

their customers. Microsoft states, for example, that, "with 'the pressure . . . only increasing to either go mobile or go home,' edge providers frequently introduce new edge services on mobile platforms first, and the success or failure of these edge providers' businesses often depends in large part on their mobile offerings."[183]

91. Furthermore, the technology underlying today's mobile broadband networks, as compared to those deployed in 2010, not only provides operators with a greater ability to manage their networks consistent with the rules we adopt today,[184] but also gives those operators a greater ability to engage in conduct harmful to the virtuous cycle in the absence of open Internet rules.[185] As discussed above, certain behaviors by broadband providers may impose negative externalities on the Internet ecosystem, resulting in less innovation from edge providers.[186] We find that the same is true today for mobile wireless broadband providers, particularly as mobile broadband technology has become more widespread and mobile broadband services have become more integrated into the economy.

92. In view of the evidence showing the evolution of the mobile broadband marketplace, we conclude that it would best serve the public interest to revise our approach for mobile broadband services and apply the same openness requirements as those applied to providers of fixed broadband services. The Commission has long recognized that the Internet should remain open for consumers and innovators alike, regardless of the different technologies and services through which it may be accessed.[187] Although the Commission found in 2010 that conditions at that time warranted a more limited application of open Internet rules to mobile broadband services, it nevertheless recognized the importance of freedom and openness for users of mobile broadband networks, finding that "consumer choice, freedom of expression, end-user control, competition, and the freedom to innovate without permission are as important when end users are accessing the Internet via mobile broadband as via fixed."[188] In contrast to the state of the mobile broadband marketplace when the Commission adopted the 2010 open Internet rules, the evidence in the record today shows how mobile broadband services have evolved to become essential, critical means of access to the Internet for millions of consumers every day. Because of this evolution and the widespread use of mobile broadband services, maintaining a regime under which fewer protections apply in a mobile environment risks creating a substantively different Internet experience for mobile broadband users as compared to fixed broadband users. Broadband users should be able to expect that they will be entitled to the same Internet openness protections no matter what technology they use to access the Internet. We agree with arguments made by a large number of commenters that applying a consistent set of requirements will help ensure that all consumers can benefit from full access to an open and robust

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[183] Microsoft Comments at 21.

[184] *See, e.g.*, OTI Comments at 57-59 (arguing that "[t]here is nothing about the technology of today's increasingly prevalent 4G wireless data networks that should preclude compliance with open Internet protections, including the extension of basic *Carterfone* protections to mobile broadband Internet access networks. Although mobile 4G/LTE technologies have advanced considerably since 2010, they have evolved in a manner that make open platforms and a non-discrimination rule far more feasible to implement than the Commission anticipated four years ago.").

[185] *See, e.g.*, OTI Reply at 23-24; Cisco, *Integrated DPI and Cisco In-Line Services: Optimize the Flow of Traffic and Monetize Your Network*, www.cisco.com/c/en/us/solutions/collateral/wireless/network-traffic-optimization/white_paper_c11-607164-00.html (last visited Feb. 10, 2015) ("Industry experts agree that DPI and its complementary applications are the best way to increase network efficiency and a mobile operator's revenue."); *see also* Sandvine, *Deep Packet Inspection (DPI)*, https://www.sandvine.com/platform/deep-packet-inspection.html (last visited Feb. 10, 2015).

[186] *See supra* paras. 82-83.

[187] *2010 Open Internet Order*, 25 FCC Rcd at 17956, para. 93.

[188] *Id*.

Internet.[189] We note that evidence in the record indicates that mobile broadband providers themselves have recognized the importance of open Internet practices for mobile broadband consumers.[190]

93. Despite their support of open Internet principles, several of the nationwide mobile providers oppose broader openness requirements for mobile broadband, arguing that additional rules are unnecessary in the mobile broadband market. T-Mobile, for example, argues that "robust retail competition in the mobile broadband market already constrains mobile provider behavior."[191] Verizon comments that "consumer choice and competition also have ensured a differentiated marketplace in which providers routinely develop innovative offerings designed to outcompete competitors' offerings."[192] AT&T contends that additional rules are unnecessary as mobile broadband providers are already investing in the networks, innovating, reducing prices, and thriving.[193] CTIA contends that "the robust competitive conditions in the mobile broadband marketplace are a defining differentiator" and that "any new open Internet framework should account for the competitive mobile dynamic."[194]

94. Based upon the significant changes in mobile broadband since 2010 discussed above, including the increased use of mobile broadband and the greater ability of mobile broadband providers to engage in conduct harmful to the virtuous cycle, we are not persuaded that maintaining fewer open Internet protections for consumers of mobile broadband services would serve the public interest. Contrary to provider arguments that applying a broader set of openness requirements will stifle innovation and chill investment, we find that the rules we adopt today for all providers of services will promote innovation, investment, and competition. As we discuss above, an open Internet enables a virtuous cycle where new uses of the network drive consumer demand, which drives network improvements, which result in further innovative uses. We agree with commenters that "mobile is a key component" of the virtuous cycle.[195] OTI comments that "a variety of economic analyses suggest that the Internet's openness is a key driver of its value . . . . Other economic studies have found that non-neutral conditions

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[189] *See, e.g.*, CDT Comments at 28; Consumers Union Comments at 11-14; Cox Comments at 8-11; Frontier Comments at 8-10; Internet Association Reply at 5-7; Microsoft Comments at 19-27; Mozilla Reply at 20-21; NCTA Comments at 69-70; OTI Comments at 27-28; Public Knowledge Comments at 23-24; Time Warner Cable (TWC) Comments at 27-28; Vonage Comments at 30-33.

[190] CTIA Comments at 11-13.

[191] T-Mobile Reply at 2.

[192] Verizon Reply at 27; *see also* Verizon Jan. 15, 2015 *Ex Parte* Letter Attach. at 6-8.

[193] AT&T Reply at 60-79.

[194] Letter from Scott K. Bergmann, Vice Pres. Reg. Affairs, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Nov. 6, 2014); *see also* Letter from Scott K. Bergmann, Vice Pres. Reg. Affairs, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (CTIA Feb. 10, 2015 *Ex Parte* Letter) ("Today, the mobile broadband market is even more competitive than it was in 2010: Data from the Commission's just-released *Seventeenth Report* shows that 82% of Americans can choose among *four* or more mobile broadband providers."). However, we note that this data cited from the *17th Mobile Wireless Report* represent network coverage, which does not necessarily reflect the number of choices available for purchase by a particular individual household. Coverage calculations are based on Mosaik data, which have certain limitations that likely overstate the extent of mobile wireless coverage. Furthermore, as discussed above, the ability of broadband providers to threaten the open Internet does not depend on them having market power over their end users. *See also infra* para. 98 (citing some recent examples of consolidation in the wireless industry); *Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269, Report and Order, 29 FCC Rcd. 6133, 6156-57, para. 46 (2014) (describing past consolidation of the wireless industry, including in terms of factors beyond only the number of competitors, such as market shares and spectrum holdings).

[195] Mozilla Reply at 22.

in the broadband market might maximize profits for broadband providers but would ultimately minimize consumer welfare . . . . There is significant evidence that a vibrant and neutral online economy is critical for a healthy technology industry, which is a significant creator of jobs in the U.S."[196] We find that these arguments apply to mobile broadband providers as well as to fixed, and apply even though there may be more competition among mobile broadband providers.

95. We note that the Commission's experience with applying open platform rules to Upper 700 MHz C Block licensees,[197] including Verizon Wireless, has shown that openness principles can be applied to mobile services without inhibiting a mobile provider's ability to compete and be successful in the marketplace. We find that it is reasonable to conclude that, even with broader application of Internet openness requirements, mobile broadband providers will similarly continue to compete and develop innovative products and services. We also expect that the force of consumer demand that led mobile broadband providers to invest in their networks over the past four years will likely continue to drive substantial investments in mobile broadband networks under the open Internet regime we adopt today.[198]

96. Although mobile providers generally argue that additional rules are not necessary to deter practices that would limit Internet openness, concerns related to the openness practices of mobile broadband providers have arisen. As we noted in the *2014 Open Internet NPRM*, in 2012, the Commission reached a $1.25 million settlement with Verizon for restricting tethering apps on Verizon smartphones, based on openness requirements attached to Verizon's Upper 700 MHz C Block licenses.[199] Also in 2012, consumers complained when they encountered problems accessing Apple's FaceTime application on AT&T's network.[200] More recently, significant concern has arisen when mobile providers' have attempted to justify certain practices as reasonable network management practices, such as applying speed reductions to customers using "unlimited data plans" in ways that effectively force them to switch to price plans with less generous data allowances.[201] As Consumers Union observes, many mobile broadband provider practices are non-transparent, because customers receive "no warning or explanation of when their speeds will be slowed down."[202] Other commenters such as OTI also cite mobile providers' blocking of the Google Wallet e-payment application.[203] Although providers claimed that the blocking was justified based on security concerns, OTI notes that "this carrier behavior raised anticompetitive concerns when AT&T, Verizon and T-Mobile later unveiled their own mobile payment application, a competitor to Google Wallet . . . ."[204] Microsoft also describes further potential for abuse based on its

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[196] OTI Comments at 4-5.

[197] *700 MHz Second Report and Order*, 22 FCC Rcd at 15359, para. 60; 47 C.F.R. § 27.16.

[198] *See* Microsoft Comments at 6.

[199] *See generally Cellco Partnership d/b/a Verizon Wireless*, File No. EB-11-IH-1351, Acct. No. 201232080028, FRN 0003290673, Order and Consent Decree, 27 FCC Rcd 8932 (2012).

[200] AT&T initially restricted use of Apple's FaceTime and iPad application to times when the end user was connected to Wi-Fi and thus to another broadband provider. The Commission did not conclude whether such a practice violated open Internet principles. *See* David Kravets, *AT&T Holding FaceTime Hostage is No Net-Neutrality Breach*, Wired.com (Aug. 22, 2012) http://www.wired.com/threatlevel/2012/08/facetime-net-neutrality0flap/ (last visited Feb. 10, 2015); *see also* Open Internet Advisory Committee, 2013 Annual Report (Aug. 20, 2013), at 39-46, http://transition.fcc.gov/cgb/oiac/oiac-2013-annual-report.pdf (2013 OIAC Annual Report).

[201] *See* Prepared Remarks of FCC Chairman Tom Wheeler, 2014 CTIA Show, Las Vegas, NV (Sept. 9, 2014).

[202] Consumers Union Reply at 9.

[203] WGAW Comments at 15. *But see* CTIA Reply at 17.

[204] OTI Comments at 29-30.

experience in other countries without open Internet protections, claiming, for example, that "several broadband access providers around the world have interfered or degraded Skype traffic on their networks."[205] A recent survey of European Internet users found that respondents reported experiencing problems with "blocking of internet content."[206] Mobile services notably accounted for a significant percentage of negative experiences reported in the survey.[207] OTI argues that, even with competition, mobile providers have an interest in seeking rents from edge providers and "in securing a competitive advantage for their own competing apps, content and services."[208] We agree, and find that the rules we adopt today for mobile network providers will help guard against future incidents that have the potential to affect Internet openness and undermine a mobile broadband consumer's right to access a free and open Internet.

97. In addition, we agree with those commenters that argue that mobile broadband providers have the incentives and ability to engage in practices that would threaten the open nature of the Internet, in part due to consumer switching costs. Switching costs are a significant factor in enabling the ability of mobile broadband providers to act as gatekeepers. Microsoft states that "for the large number of applications that are available only in the mobile context, mobile broadband access providers today can be an edge provider's only option for reaching a particular end user," and argues that, because of high switching costs, few mobile broadband consumers routinely switch providers.[209] Therefore, Microsoft argues, "even if there is more than one mobile broadband access provider in a specific market, there may not be effective competitive alternatives (for edge providers or consumers) and these mobile broadband access providers retain the ability to act in a manner that undermines the competitive neutrality of the online marketplace."[210]

98. The level of wireless churn, when viewed in conjunction with data on consumer satisfaction, is consistent with the existence of important switching costs for customers. Based on results from surveys, OTI and Consumers Union argue that switching costs have depressed mobile wireless churn rates,[211] meaning that customers may remain with their service providers even when they are dissatisfied.[212] Consumers Union cites a February 2015 *Consumer Reports* survey showing that "27

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[205] Microsoft Comments at 25.

[206] European Commission, *1 in 4 European Internet Users Still Experience Blocking of Internet Content, Study Shows* (Feb. 27, 2014), http://europa.eu/rapid/press-release_MEMO-14-136_en.htm.

[207] *Id*.

[208] OTI Reply at 25; *see also* Letter from Michael Calabrese, Director, Wireless Future Project, New America Open Technology Institute and Delara Derakhshani, Policy Counsel, Consumers Union, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 5 (filed January 28, 2015) (OTI/Consumers Union *Ex Parte* Letter).

[209] Microsoft Comments at 23-24.

[210] *Id*.

[211] *See* OTI/Consumers Union *Ex Parte* Letter at 3-4 ("Despite recent increased price competition from T-Mobile and Sprint, the two dominant carriers (AT&T and Verizon) continue to enjoy industry-low customer churn rates. In 2014 AT&T realized both its lowest churn rate for a quarter (0.86 percent among postpaid subscribers) and for a full year (1.035 percent)."). Average monthly churn across AT&T, Sprint, T-Mobile, and Verizon Wireless was 1.56 percent in the first three quarters of 2014, compared to 1.83 percent in all of 2007. *See 16th Mobile Wireless Report*, 28 FCC Rcd at 3865, Chart 18; *17th Mobile Wireless Report*, 29 FCC Rcd at 15325, Chart II.B.6.

[212] *See* OTI/Consumers Union *Ex Parte* Letter at 4 ("The American Customer Satisfaction Index found that wireless service 'remains among the lower-scoring categories' of industries they review. Among the 43 major U.S. industries rated, the consumer satisfaction ranking of mobile carriers are tied for 38th worst with the U.S. Postal Service and just one spot above the satisfaction score of airlines (wireline ISPs are dead last). The OTI representative stated that it would be completely implausible to attribute historically low churn rates to consumer

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percent of mobile broadband consumer[s] who are dissatisfied with their mobile broadband service provider are reluctant to switch carriers" due to several factors.[213] That many customers stay with their mobile wireless providers, despite expressing dissatisfaction with their current provider and despite the availability of alternate plans from other providers, suggests the presence of significant barriers to switching.[214] Furthermore, this has been a period of market and spectrum consolidation, which has decreased the choices available to consumers in many parts of the country. For example, Vonage argues that "recent mergers between AT&T and Leap, and T-Mobile and MetroPCS have reduced the ability of wireless end users to switch to competing providers in the event of potential discrimination against the edge services they may want to access."[215] Choices may be particularly limited in rural areas, both because fewer service providers tend to operate in these regions and because consumers may encounter difficulties in porting their numbers from national to local service providers.[216]

99. Switching costs may arise due to a number of factors that affect mobile consumers. For example, consumers may face costs due to informational uncertainty, particularly in the context of concerns over open Internet restrictions. The provision of wireless service involves the interaction between the wireless network operator, the various edge providers, the customer's handset or other equipment, and the conditions present in the specific location the customer wishes to use the service. In this environment, it can be very difficult for customers to ascertain the source of a service disruption, and hence whether switching wireless providers would solve the problem.[217] Additionally, product

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satisfaction when, in fact, consumer satisfaction is among the lowest five industries among America's 43 largest consumer-facing industries."); *see also* Consumers Union Comments at 14 ("A January 2014 Consumer Reports article reported that high switching costs continue to serve as barriers to customers freely changing carriers. Thirty-one percent of survey respondents said that they are seriously considering switching providers, but one in six of that group said that they cannot switch because long-term contracts and early termination fees handcuff them to carriers."). *But see* CTIA Feb. 10, 2015 *Ex Parte* Letter at 3-4 (disagreeing with New America and Consumers Union by arguing that surveys show high levels of customer satisfaction); Verizon Jan. 15, 2015 *Ex Parte* Letter Attach. at 10-11 (arguing that recent levels of churn show that many consumers can switch). Although a number of consumers may well be satisfied with their mobile broadband service, the surveys cited by OTI and Consumers Union also suggest that there are significant numbers of dissatisfied customers who feel they cannot switch. These consumers are likely to have difficulty responding to broadband provider polices that disrupt the open Internet.

[213] OTI/Consumers Union *Ex Parte* Letter at 4.

[214] Paul de Sa, Ian Chun, and Julia Zhen present an analysis of the price plans available from AT&T, Sprint, T-Mobile, and Verizon Wireless during the summer of 2014, concluding that "it *almost always* makes economic sense for 'perfectly rational' subscribers to change carriers, as there are generally cheaper plans available from rival carriers to attract switchers." The authors argue that the low observed switching rates, despite the availability of these plans, "suggest[] that many other factors aside from price are relevant drivers of churn, consistent with [the authors'] view of substantial demand inertia." Paul de Sa, Ian Chun, and Julia Zheng, Bernstein Research, *A Different Way to Compare Mobile Pricing (Or Does Discounting Matter?)* at 5 (August 21, 2014) (*Aug. 2014 de Sa Pricing Report*) (emphasis in original).

[215] Vonage Comments at 17-18; *see also Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269, Report and Order, 29 FCC Rcd 6133, 6146-47, paras. 24-25 (2014); OTI/Consumers Union *Ex Parte* Letter at 5-6.

[216] *See supra* note 182; OTI/Consumers Union *Ex Parte* Letter at 2 ("Phone number portability is administered so that it works well only for national carriers, since consumers often don't have the option to keep their number when moving from a national to non-national carrier.").

[217] *See* Public Knowledge Comments at 18 ("Switching providers incurs uncertainty costs because it is very difficult for consumers to assess the quality of a new service in advance. However, allowing paid prioritization and other blocking systems can create additional sources of uncertainty that magnify access networks' market power. In particular, customers may not be able to ascertain the sources of internet access problems, and therefore may attribute quality of service issues to edge providers instead of network operators. Regardless of what party might be

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differentiation can make it difficult for consumers to compare plans, which may also increase switching costs.[218] Finally, customers may face a variety of hassle-related and financial switching costs.[219] Disconnecting an existing service and activating a new one may involve early termination fees (ETFs), coordinating with multiple members of a family plan, billing set-up, transferring personal files, and porting phone numbers, each of which may create delays or difficulties for customers.[220] As part of this process, some customers may need to replace their equipment, which may not be compatible with their new mobile service provider's network.[221] OTI and Consumers Union argue that moving multiple members of a shared or family plan may be particularly expensive, since "[n]ot only do groups face the cost of multiple ETFs, but frequently the contract termination dates become nonsynchronous due to the addition of new lines and individuals upgrading their devices at different points in time."[222] Furthermore,

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responsible for the situation, '[t]he fact that the quality of the network services is opaque to consumers under discrimination, confers additional market power to access networks.'").

[218] New America OTI/Consumers Union *Ex Parte* Letter at 4. Wireless service providers are differentiated in terms of their network performance, coverage, device lineups, and plan features, among other things. *See 17th Mobile Wireless Report*, para 168. *See also* CTIA Feb. 10, 2015 *Ex Parte* Letter Attach. at 19 ("In 2013 alone, the four major carriers offered nearly 700 combinations of smartphone plans, and a family of five had in excess of 250 choices to select from.").

[219] OTI/Consumers Union *Ex Parte* Letter at 2 ("Of course, subscribers *can* switch carriers, but relatively few do primarily because of the multiple strategies that carriers use to create both the perception and the reality of substantial financial penalties, loss of time and uncertainties about retaining your data or even, in some cases, your phone number.") (emphasis in original).

[220] *See, e.g.*, Microsoft Comments at 24 (In the U.S., "[p]art of the reason churn is so low is because customers sign two-year contracts with high early termination fees. Another is that many customers are on family or enterprise plans, which are often more 'sticky' and make it more difficult for customers to switch carriers."). *But see* AT&T Reply at 60-65 (noting that "many innovative service plans provide the option of eliminating early termination fees" and that "this recent shift in the industry away from ETFs has significantly reduced the cost of switching providers and enabled customers to act immediately when a competitor introduces a more attractive service offering"). However, although there have been recent promotions by some providers regarding ETFs and some developments in secondary markets for contracts and devices, ETFs continue to affect a large proportion of customers who do not elect to purchase their phones up front, and switching costs remain due to the other factors discussed above. A majority of nationwide mobile broadband providers charge ETFs, which currently range from approximately $350 to $650, based on the type of plan and the number of members in the plan. Typically, the ETFs are pro-rated based on an average 2-year contract plus the cost of an associated handset (which can amount to as much as $650 for a high end phone such as an iPhone 6). Furthermore, it is not clear that ETF promotions will continue to always be available. *See 17th Mobile Wireless Report*, 29 FCC Rcd at 15382, para. 145; OTI/Consumers Union *Ex Parte* Letter at 2 (arguing that T-Mobile's ETF offer is "a temporary marketing strategy"); *see infra* note 222.

[221] *See, e.g.*, Free Press Comments at 31-32, n.47 (arguing that differences in network technologies and frequency bands can lead to handset incompatibilities, meaning customers must purchase new equipment); *Aug. 2014 de Sa Pricing Report* at 2 ("In general, other carriers' phones (at least for iPhones) cannot easily be ported to Verizon or Sprint, and Sprint phones cannot be brought to other carriers."). Should customers require that their devices be unlocked, they may be subject to ETFs, per CTIA's Consumer Code. CTIA, *Consumer Code for Wireless Service*, http://www.ctia.org/policy-initiatives/voluntary-guidelines/consumer-code-for-wireless-service (last visited Feb. 12, 2015).

[222] OTI/Consumers Union *Ex Parte* Letter at 3. *But see* CTIA Feb.10, 2015 *Ex Parte* Letter at 3 (disagreeing with New America and Consumers Union's assertions about high switching costs and the effects of family plans, citing to ETF buyout offers). We discuss some caveats to ETF buyout promotions above. Furthermore, because ETF rebates can take months to process, they may not be adequate switching incentives for credit- and liquidity-constrained customers. This may be particularly true when dealing with multiple ETFs at once, as in a family or shared plan. T-Mobile, *ETF Reimbursement FAQs*, https://www.switch2t-mobile.com/ (last visited Feb. 12, 2015); Sprint, *It's a T-Mobile Triple Threat*, http://www.sprint.com/landings/tmobile-buyback/index.html (last visited Feb. 12, 2015);

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OTI and Consumers Union argue that these costs affect an increasingly large proportion of consumers, since the penetration of shared plans has increased such that the majority of AT&T and Verizon Wireless customers now have shared plans.[223]

100. AT&T, T-Mobile, and Verizon argue that the factors that led the Commission to adopt a more limited set of openness rules for mobile in 2010 remain valid today. They argue that mobile broadband networks should not be viewed as mature as mobile technologies continue to develop and evolve.[224] They also contend that the extraordinary growth in use of mobile broadband services requires that providers have more flexibility to be able to handle the increased traffic and ensure quality of service for subscribers. T-Mobile, for example, asserts that "while mobile networks are more robust and offer greater speeds and capacity than they did when the 2010 rules were enacted, they also face greater demands; their need for agile and dynamic network management tools has actually increased."[225]

101. We recognize that mobile service providers must take into account factors such as mobility and reliance on spectrum. As discussed more fully below in the context of each of the rules, however, we find that the requirements we adopt today are sufficiently tailored to provide carriers with the flexibility they need to accommodate these conditions. Moreover, as described further below, we conclude that retaining an exception to the no-blocking rule, the no-throttling rule, and the no-unreasonable interference/disadvantage standard we adopt today for reasonable network management will allow sufficient flexibility for mobile service providers.

4. The Commission Must Act to Preserve Internet Openness

102. Given that broadband providers—both fixed and mobile—have both the incentives and ability to harm the open Internet, we again conclude that the relatively small incremental burdens imposed by our rules are outweighed by the benefits of preserving the open nature of the Internet, including the continued growth of the virtuous cycle of innovation, consumer demand, and investment.[226] We note, for example, that the disclosure requirements adopted in this order are widely understood, have industry-based definitions, and are commonly used in commercial Service Level Agreements by many broadband

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Verizon, *Switch and Save*. http://www.verizonwireless.com/landingpages/switch-and-save/ (last visited Feb. 12, 2015). *See also* Simon Flannery and Jon Mark Warren, *AT&T and Verizon, US Wireless: The Trouble with Churn* at 3 (Aug. 7, 2013) ("Family/Shared plans promote lower churn because of the lower per-line cost, the networking effect (friends and family on the same network), and the difficulty of coordinating a carrier change.").

[223] *Id* at 3. OTI and Consumers Union report that nearly 70 percent of AT&T's and 61 percent of Verizon Wireless's postpaid subscribers had shared plans as of the fourth quarter of 2014, compared to 33 percent and 46 percent, respectively, in the fourth quarter of 2013. *Id.*

[224] Verizon Reply at 28; CTIA Comments at 7, 25; Mobile Future Comments at 11-12; AT&T Reply at 84-86.

[225] T-Mobile Reply at 2.

[226] *2010 Open Internet Order*, 25 FCC Rcd at 17928, para. 39 (noting that there are some costs to implementing open Internet rules, such as additional disclosures about broadband provider practices, but these costs are not overly burdensome, and they are outweighed by the substantial benefits provided by the rules). Below, we further discuss the costs associated with enhanced transparency. *See infra* Section C.3.b(i). *See also, e.g.*, AOL Comments at 2 (explaining that "[t]he Internet's openness has fostered innovation and investment—both in advancements in network deployment and the services that ride upon them—creating . . . a virtuous circle, where richer and more diverse content on the 'edge' jump-starts demand, which brings about infrastructure investment, which brings about even richer and more diverse content"); Open MIC Comments at 3 (noting that "[o]pen Internet principles also promote free speech, civic participation, democratic engagement and marketplace competition, as well as robust broadband adoption and participation in the Internet community by minorities and other socially and economically disadvantaged groups").

providers.[227] Open Internet rules benefit investors, innovators, and end users by providing more certainty to each regarding broadband providers' behavior, and helping to ensure the market is conducive to optimal use of the Internet. Open Internet rules are also critical for ensuring that people living and working in rural areas can take advantage of the substantial benefits that the open Internet has to offer.[228] In minority communities where many individuals' only Internet connection may be through a mobile device, robust open Internet rules help make sure these communities are not negatively impacted by harmful broadband provider conduct.[229] Such rules additionally provide essential safeguards to ensure that the Internet flourishes as a platform for education and research.[230]

103. The Commission's historical open Internet policies and rules have blunted the incentives, discussed above, to engage in behavior harmful to the open Internet.[231] Commenters who argue that rules

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[227] *See infra* Section III.C.3.b.i.; *see also infra* para. 112 (supporting the idea that the burdens should not be overwhelming because many broadband providers still voluntarily continue to abide by the 2010 no-blocking rule, even though they are no longer legally required to do so).

[228] *See, e.g.*, Center for Rural Strategies Reply at 1 (arguing that "entrepreneurs, artists, educators, activists, healthcare providers, and devoted community members . . . deserve a fair playing field. The Open Internet has given us the opportunity to revitalize Rural America's local economies, share our culture with global audiences, and amplify rural voices in debates shaping our society. But we are at risk of losing this valuable tool, even when 14.5 million of us cannot yet access it."); Letter from Edyael Casaperalta, Rural Broadband Policy Group Coordinator, National Rural Assembly to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 1 (filed Oct. 20, 2014) (explaining that "[i]t is the neutrality of the Open Internet that has given rural people an opportunity to launch businesses from our hometowns, revitalize our regional economies, share rural culture with global audiences, and amplify rural voices in debates shaping our society. Simply put, rural communities depend on Network Neutrality to get a fair shake online").

[229] *See, e.g.*, Public Knowledge Comments at 27 ("Many traditionally disadvantaged communities rely on wireless as their only internet connection and thus have the most to lose from discrimination over wireless."); *see also, e.g.*, Independent Filmmaker Organizations Reply at 11 (explaining that they "are especially concerned that limiting the extent to which Open Internet rules apply to mobile broadband providers allows providers to maintain too much control over the quality and kind of content consumers can access. This presents the real danger of creating a second class of Internet access service for those who can only access the Internet through mobile broadband. These individuals are often underrepresented individuals in low income or minority groups who are already on the wrong side of the digital divide and are most in need of the Commission's attention and support."); National Minority Organizations (MMTC) Comments at 6 (noting that "nearly 75 percent of African American and 68 percent of Hispanic cell phone owners use their devices to access the Internet, and these numbers are increasing").

[230] *See, e.g.*, Letter from Emily Sheketoff, Executive Director, Washington Office, American Library Association (ALA), to Marlene H. Dortch, Secretary, FCC, WC Docket No. 14-28, at 1-2 (filed Nov. 6, 2014) ("The Internet has become a vitally important platform for libraries and higher education in a wide variety of ways, such as for multi-media instruction and distance learning, educational collaboration through document-sharing websites and applications, storage and retrieval of digital archives, tele-health information, public access to Internet information, and many other educational services. Ensuring the Internet remain an open platform is absolutely essential for libraries to serve their communities."); *see also, e.g.*, AAJC Comments at 2-3 ("A free and open Internet ecosystem is critically important to the Asian American community for a number reasons including . . . creat[ing] opportunities for online education, especially for English language learners."); American Association of State Colleges and Universities et al. Comments 2 ("Our nation's libraries and institutions of higher education are leaders in creating, fostering, using, extending and maximizing the potential of the Internet for research, education and the public good. Libraries and institutions of higher education depend upon an open Internet to fulfill their missions and serve their communities.").

[231] *See, e.g.*, CWA & NAACP Comments at 4 (noting that CWA and NAACP agree with the Commission's assertion that one of the primary reasons there have been limited violations of Internet openness is because the Commission has had policies in place to address misconduct).

are not necessary overlook the role that the Commission's rules and policies have played in fostering that result.[232] Without rules in place to protect the open Internet, the overwhelming incentives broadband providers have to act in ways that are harmful to investment and innovation threaten both broadband networks and edge content.[233] Paid prioritization agreements, for example, have the potential to distort the market by causing prices not to reflect efficient cost recovery and by altering consumer choices for content and edge providers.[234] The record reflects the view that paid arrangements for priority treatment, such as broadband providers discriminating among content providers or prioritizing one provider's or its own content over others, likely damage the open Internet, harming competition and consumer choice.[235] Additionally, blocking and throttling harm a consumer's right to access lawful content, applications, and services, and to use non-harmful devices.[236]

C. Strong Rules That Protect Consumers from Practices That Can Threaten the Open Internet

104. We are keenly aware that in the wake of the *Verizon* decision, there are no rules in place to prevent broadband providers from engaging in conduct harmful to Internet openness, such as blocking a consumer from accessing a requested website or degrading the performance of an innovative Internet application.[237] While many providers have indicated that, at this time, they do not intend to depart from the previous rules, an open Internet is too important to consumers and innovators to leave unprotected. Therefore, we today reinstate strong, enforceable open Internet rules.[238] As in 2010, we believe that

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[232] *See supra* Section III.A.; *see also, e.g.*, Layton Comments at 19.

[233] *See, e.g.*, Greenlining Institute et al. Comments at 3 ("By rejecting the Commission's anti-blocking and anti-discrimination rules, the Verizon court has opened up the possibility that without the Commission's intervention, carriers will determine the winners and losers of the digital world."); *see also Verizon,* 740 F.3d at 645 (finding that the Commission "adequately supported and explained" that absent open Internet rules, "broadband providers represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment").

[234] *See, e.g.*, Ad Hoc Comments at 19-20 (discussing potential market distortions caused by paid prioritization agreements).

[235] *See, e.g.*, Access Comments at 8 (commenting that broadband providers have incentives that could lead to "invest[ing] in infrastructure to disproportionately improve the priority option, cease investment in infrastructure that helps the network as a whole, create artificial scarcity, or even degrade the quality of the current non-priority infrastructure to make prioritized options seem more attractive"); MDTC Comments at 3-4; *see also* AARP Comments at 17 (stating that individualized bargaining "will institutionalize pay-for priority schemes and undermine innovation and investment"); Illinois and New York Comments at 11-12 (arguing that individualized prioritization agreements could complicate meaningful disclosures by making them overly difficult for consumers to understand).

[236] *See infra* Sections III.C.1.a-b.

[237] *See supra* Section IV.B. We acknowledge other laws address behavior similar to that which our rules are designed to prevent; however, as discussed below, we do not find existing laws sufficient to adequately protect consumers' access to the open Internet. For example, some parties have suggested that existing antitrust laws would address discriminatory conduct of an anticompetitive nature. *See* ICLE Comments at 39; Citizens Against Government Waste Comments at 2; Hurwitz Comments at 7-8; *see also infra* Section III.G. We also note that certain "no blocking" obligations continue to apply to the use of Upper 700 MHz C Block licenses. *See* 47 C.F.R. § 27.16.

[238] *See, e.g.*, Comcast Comments at 15 ("As reflected in the existing disclosures of all major broadband providers, including Comcast, there is widespread support and a public commitment from broadband providers to maintain open Internet policies and practices."); Letter from Forty-Three Municipal Broadband Internet Providers to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 at 1 (filed Feb. 10, 2015) ("Accordingly, we follow the Commission's 2005 Open Internet principles and do not block, throttle, or discriminate among types of Internet

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conduct-based rules targeting specific practices are necessary.

105. *No-Blocking.* First, we adopt a bright-line rule prohibiting broadband providers from blocking lawful content, applications, services, or non-harmful devices. This "no-blocking" principle has long been a cornerstone of the Commission's policies.[239] While first applied in the Internet context as part of the Commission's *Internet Policy Statement*, the no-blocking concept dates back to the Commission's protection of end users' rights to attach lawful, non-harmful devices to communications networks.[240]

106. *No-Throttling.* Second, we adopt a separate bright-line rule prohibiting broadband providers from impairing or degrading lawful Internet traffic on the basis of content, application, service, or use of non-harmful device. This conduct was prohibited under the commentary to the no-blocking rule adopted in the *2010 Open Internet Order*.[241] However, to emphasize the importance of this concept we delineate under a separate rule a ban on impairment or degradation, to prevent broadband providers from engaging in behavior other than blocking that negatively impacts consumers' use of content, applications, services, and devices.

107. *No Paid Prioritization.* Third, we respond to the deluge of public comment expressing deep concern about paid prioritization.[242] Under the rule we adopt today, the Commission will ban all paid prioritization subject to a narrow waiver process.

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traffic; nor do we charge Internet edge providers for priority delivery on our networks. We also comply with the requirement in the Commission's 2010 transparency rule for a unitary set of disclosures covering our service characteristics and network management practices."); *see also AT&T Statement on the U.S. Court of Appeals D.C. Circuit Open Internet Decision*, AT&T Public Policy Blog (Jan. 14, 2014) http://www.attpublicpolicy.com/fcc/att-statement-on-the-u-s-court-of-appeals-d-c-circuit-open-internet-decision/("As the FCC assesses the impact of today's court decision, AT&T can assure all of our customers and stakeholders that our commitment to protect and maintain an open Internet will not change."); *Time Warner Cable Issues Statement on Today's Decision by the U.S. Court of Appeals for the D.C. Circuit*, Business Wire (Jan. 14, 2014), http://www.businesswire.com/news/home/20140114006474/en/Time-Warner-Cable-Issues-Statement-Today%E2%80%99s-Decision#.VOZuW4vF98H ("Time Warner Cable has been committed to providing its customers the best service possible, including unfettered access to the web content and services of their choice. This commitment, which long precedes the FCC rules, will not be affected by today's court decision.").

[239] *Internet Policy Statement*, 20 FCC Rcd at 14987-88, para. 4. *See also, e.g.*, *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17903, para. 734 (2011) (*USF/ICC Transformation Order*), *aff'd sub nom. In re FCC 11-161*, 753F.3d 1015 (10th Cir. 2014) (reiterating that call blocking is impermissible in intercarrier compensation disputes); *Establishing Just and Reasonable Rates for Local Exchange Carriers; Call Blocking by Carriers*, WC Docket No. 07-135, Declaratory Ruling and Order, 22 FCC Rcd 11629, 11629, 31, paras. 1, 6 (Wireline Comp. Bur. 2007) (*2007 Declaratory Ruling*) (reiterating that call blocking is impermissible as a self-help measure to address intercarrier compensation dispute); *Blocking Interstate Traffic in Iowa*, Memorandum Opinion and Order, 2 FCC Rcd 2692 (1987) (denying application for review of Bureau order, which required petitioners to interconnect their facilities with those of an interexchange carrier in order to permit the completion of interstate calls over certain facilities).

[240] *See, e.g.*, *Carterfone*, 13 FCC 2d at 424; *Computer II*, 77 FCC 2d at 388.

[241] *2010 Open Internet Order*, 25 FCC Rcd at 17943, para. 66 ("We make clear that the no-blocking rule bars broadband providers from impairing or degrading particular content, applications, services, or non-harmful devices.").

[242] Consumers and small entities generally expressed concern that these arrangements are harmful and should be prevented by the Commission. *See, e.g.*, Anita Barfield Comments at 1 ("Net neutrality is important to me because I do not want my ISP to be able to prioritize the content I see, [and] I am concerned about having my access to information blocked and other content prioritized."); David Galzerano Comments at 1 ("In ending net neutrality and allowing companies to purchase priority rights when it comes to data transmission, you would not only be eliminating choice and freedom of information for all - which was the pioneering spirit behind the founding of the

(continued….)

108. *No-Unreasonable Interference/Disadvantage Standard.* In addition to these three bright-line rules, we also set forth a no-unreasonable interference/disadvantage standard, under which the Commission can prohibit practices that unreasonably interfere with the ability of consumers or edge providers to select, access, and use broadband Internet access service to reach one another, thus causing harm to the open Internet. This no-unreasonable interference/disadvantage standard will operate on a case-by-case basis and is designed to evaluate other current or future broadband Internet access provider policies or practices—not covered by the bright-line rules— and prohibit those that harm the open Internet.

109. *Transparency Requirements.* We also adopt enhancements to the existing transparency rule to more effectively serve end-user consumers, edge providers of broadband products and services, and the Internet community. These enhanced transparency requirements are modest in nature, and we decline to adopt requirements proposed in the NPRM that raised concern for smaller broadband providers in particular, such as disclosures as to the source of congestion.

1. Clear, Bright Line Rules

110. The record in this proceeding reveals that three practices in particular demonstrably harm the open Internet: blocking, throttling, and paid prioritization. For the reasons described below, we find each of these practices is inherently unjust and unreasonable, in violation of section 201(b) of the Act, and that these practices threaten the virtuous cycle of innovation and investment that the Commission intends to protect under its obligation and authority to take steps to promote broadband deployment under section 706 of the 1996 Act. We accordingly adopt bright-line rules banning blocking, throttling, and paid prioritization by providers of both fixed and mobile broadband Internet access service.[243]

a. Preventing Blocking of Lawful Content, Applications, Services, and Non-harmful Devices

111. We continue to find, for the same reasons the Commission found in the *2010 Open Internet Order* and reiterated in the *2014 Open Internet NPRM*, that "the freedom to send and receive lawful content and to use and provide applications and services without fear of blocking is essential to the Internet's openness."[244] Because of broadband providers' incentives to block competitors' content, the need to protect a consumer's right to access lawful content, applications, services, and to use non-harmful devices is as important today as it was when the Commission adopted the first no-blocking rule in 2010.[245]

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Internet - you would be relegating ALL data from Independent and rural operators to a second-class state, as these operators would NEVER be able to purchase priority status for any of their data."); Derek Bass Comments at 1 ("Our long-term economy depends on the free, open access to the internet that we currently have. Allowing privileged corporations fast-track priority will impede innovation and stifle the free exchange of ideas needed to sustain our economy"); Doug Cottrill Comments at 1 ("Companies that are willing and able to pay more should NOT be able to get higher priority for their content, nor should information be slowed down or blocked because of different pricing structures controlled by telecommunications companies.").

[243] *See infra* Section III.C.1.

[244] *2014 Open Internet NPRM*, 29 FCC Rcd at 5593, para. 89; *2010 Open Internet Order*, 25 FCC Rcd at 17941-42, para. 62.

[245] *See supra* Section III.B. *See also* Broadband Internet Technical Advisory Group, *Port Blocking* at 2 (2013) http://www.bitag.org/documents/Port-Blocking.pdf, ("Because Port blocking can affect how particular Internet applications function, its use has the potential to be anti-competitive, discriminatory, otherwise motivated by non-technical factors, or construed as such."); Body of European Regulators for Electronic Communications, *A View of Traffic Management and Other Practices Resulting in Restrictions to the Open Internet in Europe* at 8-9 (May 29,
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112. In the *2014 Open Internet NPRM*, the Commission tentatively concluded that it should re-adopt the text of the vacated no-blocking rule.[246] The record overwhelmingly supports the notion of a no-blocking principle and re-adopting the text of the original rule.[247] Further, we note that many broadband providers still voluntarily continue to abide by the 2010 no-blocking rule, even though they have not been legally required to do so by a rule of general applicability since the *Verizon* decision.[248] After consideration of the record and guidance from the D.C. Circuit, we adopt the following no-blocking rule applicable to both fixed and mobile broadband providers of broadband Internet access service:

> *A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.*

113. Similar to the 2010 no-blocking rule, the phrase "content, applications, and services" again refers to all traffic transmitted to or from end users of a broadband Internet access service, including traffic that may not fit clearly into any of these categories.[249] Further, the no-blocking rule adopted today again applies to transmissions of lawful content and does not prevent or restrict a broadband provider from refusing to transmit unlawful material, such as child pornography or copyright-infringing

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2012), http://ec.europa.eu/digital-agenda/sites/digital-agenda/files/Traffic%20Management%20Investigation%20BEREC_2.pdf ("Among the restrictions related to specific types of traffic, the most frequently reported restrictions are the blocking and/or throttling of peer-to-peer (P2P) traffic, on both fixed and mobile networks, and the blocking of Voice over IP (VoIP) traffic, mostly on mobile networks."). *But see* WISPA Comments at 22 ("[T]here is no evidence that small businesses are blocking lawful content, applications, services or non-harmful devices, or that their existing network management practices are unreasonable. Small businesses have no business incentive to block content; their main objective is to provide rural Americans with full access to all lawful broadband content and at reasonable and very competitive costs.").

[246] *2014 Open Internet NPRM*, 29 FCC Rcd at 5593, para. 89.

[247] A broad cross-section of broadband providers, edge providers, public interest organizations, and individuals support this approach. *See, e.g.*, COMPTEL Reply at 4 (stating that "the record reflects broad agreement that the Commission should adopt a no-blocking rule"); IFTA Comments at 10 (supporting the re-adoption of a stand-alone no-blocking rule); Engine Advocacy Comments at 2 (supporting efforts to adopt "strict no-blocking and non-discrimination rules"); OTI Comments at 11 (noting that as the broadband market becomes more consolidated, "[t]here is therefore an even greater need for explicit protections against the blocking of lawful content online"); Cogent Comments at 13 ("an ISP blocking access to lawful Internet content is the antithesis of an open Internet"); Cox Comments at 5; MMTC Comments at 11; Letter from Barbara van Schewick to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 09-191, 14-28, Attach. at 7 (filed Sept. 19, 2014) (van Schewick Sept. 19, 2014 *Ex Parte* Letter) (stating a rule to protect against blocking "is part of all network neutrality proposals; this is the one rule on which all network neutrality proponents agree"). *But see* TechFreedom Comments at 15-16 ("If [broadband providers] are truly nefarious . . . then public outcry by the affected subscribers should likely be sufficient to convince the ISP to change its practices.").

[248] *See, e.g.*, CenturyLink, *High Speed Internet Service Management*, http://www.centurylink.com/Pages/AboutUs/Legal/InternetServiceManagement/ (last visited Jan. 29, 2015) ("CenturyLink does not block, prioritize, or degrade any Internet sourced or destined traffic based on application, source, destination, protocol, or port unless it does so in connection with a security practice described in the security policy section below"); RCN, *FCC Network Management Disclosure*, http://www.rcn.com/images/pdfs/rcn-net-management-disclosure.pdf (last visited Jan. 29, 2015) ("We do not block any lawful content, applications, services, or your use of non-harmful devices."); Verizon, *Terms and Conditions Network Management Guide*, https://www.verizon.com/about/terms/networkmanagementguide/ (last visited Jan. 29, 2015) ("Verizon Online does not affirmatively manage congestion on the network through mechanisms such as real-time throttling, blocking, or dropping of specific end user traffic.").

[249] *2010 Open Internet Order*, 25 FCC Rcd at 17942, para. 64.

materials.[250] Today's no-blocking rule also entitles end users to connect, access, and use any lawful device of their choice, provided that the device does not harm the network.[251] The no-blocking rule prohibits network practices that block a specific application or service, or any particular class of applications or services, unless it is found to be reasonable network management. Finally, as with the 2010 no-blocking rule, today's no-blocking rule prohibits broadband providers from charging edge providers a fee to avoid having the edge providers' content, service, or application blocked from reaching the broadband provider's end-user customer.[252]

114. *Rejection of the Minimum Level of Access Standard.* The *2014 Open Internet NPRM* proposed that the no-blocking rule would prohibit broadband providers from depriving edge providers of a minimum level of access to the broadband provider's subscribers and sought comment on how to define that minimum level of service.[253] After consideration of the record, we reject the minimum level of access standard. Broadband providers, edge providers, public interest organizations, and other parties note the practical and technical difficulties associated with setting any such minimum level of access.[254] For example, some parties note the uncertainty created by an indefinite standard.[255] Other parties observe that in creating any such standard of service for no-blocking, the Commission risks jeopardizing innovation.[256] We agree with these arguments and many others in the record expressing concern with the proposed minimum level of access standard.

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[250] *See id*. Similar to the 2010 no-blocking rule, this obligation does not impose any independent legal obligation on broadband providers to be the arbiter of what is lawful. *Id.* at n.201.

[251] *Id.* at 17942-43, para. 65 & n.202 (noting that a "broadband provider may require that devices conform to widely accepted and publicly-available standards applicable to its services" and that this rule is not intended to alter existing rules giving end users the right to attach devices to an MVPD system).

[252] *Id.* at 17943-44, para. 67; *see also id.* at 17919-20, paras. 25, 26. We note that during oral argument in the *Verizon* case, Verizon told the court that "in paragraph 64 of the Order the Agency also sets forth the no charging of edge providers rule as a corollary to the no blocking rule, and that's a large part of what is causing us our harm here." In response, Judge Silberman stated, "if you were allowed to charge, which are you assuming you're allowed to charge because of the anti-common carrier point of view, if somebody refused to pay then just like in the dispute between C[B]S and Warner, Time Warner . . . you could refuse to carry." Verizon's counsel responded: "[r]ight." Verizon Oral Arg. Tr. at 28.

[253] *2014 Open Internet NPRM*, 29 FCC Rcd at 5596-98, paras. 97-104.

[254] *See, e.g.*, Mozilla Comments at 15 (warning that defining a no-blocking rule in terms of establishing a minimum level of service is not likely "to prove effective and workable in practice"); USTelecom Comments at 50 ("the Commission should not impose a minimum level of service for free obligation"); Letter from Catherine J.K. Sandoval, Commissioner, California Public Utilities Commission, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, 10-127, Attach. at 14 (filed Oct. 14, 2014) (Sandoval *Ex Parte* Letter) ("[A]ny of the minimum level of access standards the FCC proposes would be insufficient to support the needs of a diversity of Internet users including Critical Infrastructure.").

[255] *See, e.g.*, Microsoft Comments at 19 ("[A] clear no blocking rule—rather than some vague, loosely defined standard for measuring a prescribed 'minimum level of service'—is critical to maintaining a vibrant and open Internet."); National Public Radio, Inc. (NPR) Comments at 9 ("Given the rapid evolution of technology, defining a 'minimum level of service' by regulatory fiat would likely become an ongoing undertaking rife with disputes, invariably resulting in repeated judicial intervention.").

[256] Information Technology & Innovation Foundation (ITIF) Comments at 22 (stating that the Commission "does not need to define and enforce a 'minimum level of service'" because it "would be a difficult exercise and may well stifle beneficial practices" such as the use of "latency-insensitive 'scavenger class' of traffic"); IL and NY Comments at 9 ("A 'minimum level of access' necessarily implies that a higher or preferential level of service will become available, creating the very two-tiers of service that the Proposed Rules are intended to prevent.").

115. The no-blocking rule we adopt today prohibits broadband providers from blocking access to lawful Internet content, applications, services, and non-harmful devices.[257] We believe that this approach will allow broadband providers to honor their service commitments to their subscribers without relying upon the concept of a specified level of service to those subscribers or edge providers under the no-blocking rule. We further believe that the separate no-throttling rule discussed below provides appropriate protections against harmful conduct that degrades traffic but does not constitute outright blocking.[258]

116. *Application of the No-Blocking Rule to Mobile.* In 2010, the Commission limited the no-blocking rule for mobile to lawful websites and applications that competed with a provider's voice or video telephony services, subject to reasonable network management.[259] The *2014 Open Internet NPRM*, citing "the operational constraints that affect mobile broadband services, the rapidly evolving nature of the mobile broadband technologies, and the generally greater amount of consumer choice for mobile broadband services than for fixed,"[260] proposed to retain the 2010 no-blocking rule. The Commission sought comment on this proposal.[261]

117. For the reasons set forth above,[262] including consumer expectations, the Commission's experience with open Internet regulations in the 700 MHz C Block, and the advances in the mobile broadband industry since 2010, we conclude instead that the same no-blocking rule should apply to both fixed and mobile broadband Internet access services.[263] Accordingly, as with fixed service, a consumer's mobile broadband provider cannot block a consumer from accessing lawful content, applications, services, or non-harmful devices, regardless of whether the content, applications, services, or devices[264] compete with a provider's own offerings, subject to reasonable network management.

118. All national mobile broadband providers, among others, opposed the application of the broader no-blocking rule to mobile broadband, arguing, for example, that mobile broadband providers

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[257] *2014 Open Internet NPRM*, 29 FCC Rcd at 5597, para. 101 (asking if the Commission should "define the minimum level of access from the perspective of end users, edge providers, or both").

[258] *See infra* Section III.C.1.b; Access Comments at 6 (drawing a distinction between outright blocking and slowing or throttling end-user access to certain content, services, or applications).

[259] *2010 Open Internet Order*, 25 FCC Rcd at 17956-57, 17959-60, paras. 94-95, 99.

[260] *2014 Open Internet NPRM*, 29 FCC Rcd at 5594, para. 91.

[261] *Id.* at 5598, para. 105.

[262] *See supra* Section III.B.3.

[263] *See* American Association of Law Libraries (AALL) Comments at 3; ADT Comments at 9; NMR Comments at 30; Voices for Internet Freedom Comments at 6; EFF Comments at 24 ("Mobile device owners should enjoy the same levels of control and choice for networked applications on their mobile devices as they do on their laptops and desktops."); Higher Education and Libraries Comments at 18-19; OTI Comments at 62; Sandvine Comments at 9 (arguing that reasonable network management permits mobile operators to treat traffic differently than fixed networks do); i2Coalition Comments at 41; TIA Comments at 20-21; *but see* AT&T Comments at 19; Cisco Comments at 22; CTIA Comments at 17 (citing capacity constraints); Mobile Future Reply at 2-3; Verizon Comments at 43-44; Sprint Reply at 23; T-Mobile Comments at 11.

[264] In evaluating the reasonable network management exception to the no-blocking rule, the Commission will drawing upon its experience with the no-blocking rule in the 700 MHz C Block. *See 700 MHz Second Report and Order*, 22 FCC Rcd at 15370-72, paras. 222-26; *see also Verizon Wireless to Pay $1.25 Million to Settle Investigation into Blocking of Consumers' Access to Certain Mobile Broadband Applications*, News Release, July 31, 2012, http://www.fcc.gov/document/verizon-wireless-pay-125-million-settle-investigation (regarding tethering applications for C Block network customers).

need the ability to block unwanted traffic[265] and spam.[266] They also argue that the particular challenges of managing a mobile broadband network, for example the unknown effects of apps,[267] require additional flexibility to block traffic.[268] As discussed below,[269] we recognize that additional flexibility may be required in mobile network management practices, but find that the reasonable network management exception we adopt today allows sufficient flexibility: the blocking of harmful or unwanted traffic remains a legitimate network management purpose, and is permissible when pursued through reasonable network management practices.

b. Preventing Throttling of Lawful Content, Applications, Services, and Non-harmful Devices

119. In the *2014 Open Internet NPRM*, the Commission proposed that degradation of lawful content or services below a specified level of service would violate a no-blocking rule.[270] While certain broadband Internet access provider conduct may result in degradation of an end user's Internet experience that is tantamount to blocking, we believe that this conduct requires delineation in an explicit rule rather than through commentary as part of the no-blocking rule.[271] Thus, we adopt a separate no-throttling rule applicable to both fixed and mobile providers of broadband Internet access service:

> *A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not impair or degrade lawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.*

120. With the no-throttling rule, we ban conduct that is not outright blocking, but inhibits the delivery of particular content, applications, or services, or particular classes of content, applications, or services.[272] Likewise, we prohibit conduct that impairs or degrades lawful traffic to a non-harmful device or class of devices. We interpret this prohibition to include, for example, any conduct by a broadband

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[265] AT&T Reply at 34-35; Sprint Reply at 22-23; T-Mobile Comments at 11, 13 (arguing that "[w]ireless broadband providers need flexibility to address network security and reliability risks, as well as other threats to public safety and the consumer experience"); Verizon Comments at 43-44;CTIA Comments at 17-18.

[266] *See, e.g.*, Verizon Comments at 4; Interisle Consulting Group Comments 27 ("[I]f blocking were banned, then spammers would be able to dramatically increase the volume of traffic they send. Other security problems could also be worsened.").

[267] *See, e.g.*, Verizon Comments at 44 ("The *Open Internet Order* appropriately recognized that the download and use of a mobile application presents unique network management issues.").

[268] *See* CTIA Comments at 27-28.

[269] *See infra* Section III.D.4.

[270] *2014 Open Internet NPRM*, 29 FCC Rcd at 5593, para. 89 ("So long as broadband providers do not degrade lawful content or service to below a minimum level of access, they would not run afoul of the proposed rule.").

[271] *See, e.g.*, Letter from the Honorable Henry A. Waxman to Tom Wheeler, Chairman, FCC, GN Docket No. 14-28, (filed Oct. 3, 2014) (Waxman Oct. 3, 2014 *Ex Parte* Letter) (proposing separate no blocking and no-throttling rules); WGAW Comments at 22 (noting that throttling may in some cases constitute a "more subtle practice[] that achieve[s] the goal of blocking"); Mozilla Reply at 3 ("There is general agreement that these rules should include a rule that prevents access network operators from blocking ordinary, lawful traffic, and some form of a nondiscrimination rule on limiting, throttling, or prioritizing traffic.").

[272] *See, e.g.*, Letter from Barbara van Schewick, Professor of Law and (by courtesy) Electrical Engineering, Stanford Law School, *et al*., to Marlene Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 Attach. at 4 (filed Feb. 18, 2015) (van Schewick Feb. 18, 2015 *Ex Parte* Letter) ("[T]he no-throttling rule should explicitly ban discrimination against applications AND classes of applications (so-called 'application-specific' discrimination).").

Internet access service provider that impairs, degrades, slows down, or renders effectively unusable particular content, services, applications, or devices, that is not reasonable network management.[273] For purposes of this rule, the meaning of "content, applications, and services" has the same as the meaning given to this phrase in the no-blocking rule.[274] Like the no-blocking rule, broadband providers may not impose a fee on edge providers to avoid having the edge providers' content, service, or application throttled.[275] Further, transfers of unlawful content or unlawful transfers of content are not protected by the no-throttling rule.[276] We will consider potential violations of the no-throttling rule under the enforcement provisions outlined below.

121. We find that a prohibition on throttling is as necessary as a rule prohibiting blocking. Without an equally strong no-throttling rule, parties note that the no-blocking rule will not be as effective because broadband providers might otherwise engage in conduct that harms the open Internet but falls short of outright blocking. For example, the record notes the existence of numerous practices that broadband providers can engage in to degrade an end user's experience.[277]

122. Because our no-throttling rule addresses instances in which a broadband provider targets particular content, applications, services, or non-harmful devices, it does not address a practice of slowing down an end user's connection to the Internet based on a choice made by the end user. For instance, a broadband provider may offer a data plan in which a subscriber receives a set amount of data at one speed tier and any remaining data at a lower tier.[278] If the Commission were concerned about the particulars of a data plan, it could review it under the no-unreasonable interference/disadvantage standard.[279] In contrast, if a broadband provider degraded the delivery of a particular application (e.g., a disfavored VoIP service) or class of application (e.g., all VoIP applications), it would violate the bright-line no-throttling rule. We note that user-selected data plans with reduced speeds must comply with our transparency rule, such that the limitations of the plan are clearly and accurately communicated to the subscriber.

123. The no-throttling rule also addresses conduct that impairs or degrades content, applications, or services that might compete with a broadband provider's affiliated content. For example, if a broadband provider and an unaffiliated entity both offered over-the-top applications, the no-throttling rule would prohibit broadband providers from constraining bandwidth for the competing over-the-top offering to prevent it from reaching the broadband provider's end user in the same manner as the

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[273] *See infra* Section III.D.3; *see also* Waxman Oct. 3, 2014 *Ex Parte* Letter at 10, n.32 ("The term 'throttling' is not limited to the technique of slowing down or delaying Internet packets, but more broadly refers to methods that can be used to differentiate, or 'shape' Internet traffic.").

[274] *See supra* Section III.C.1.a.

[275] *See supra* para. 113.

[276] *Id.*; *see also 2010 Open Internet Order*, 25 FCC Rcd at 17943-44, para. 67; *see also id.* at 17919-20, paras. 25, 26.

[277] *See, e.g.*, Cogent Comments at 17 ("There are numerous practices a last-mile broadband ISP can undertake short of outright blocking an edge provider that can degrade an end user's experience with—and thus likelihood to seek out in the future—services offered by a particular edge provider."); NARUC Comments at 6 ("[L]imiting, or otherwise degrading broadband access for users . . . is an unfair practice that 'may reduce the Internet's value to consumers.'"); *see also supra* Section III.B.

[278] *See, e.g.*, T-Mobile, *Simple Choice Plan*, http://www.t-mobile.com/cell-phone-plans/individual.html (last visited Feb. 5, 2015) (offering 1GB, 3GB, and 5GB plans with lower data speeds after the threshold is reached).

[279] *See infra* Sections III.C.2; III.D.4.

affiliated application.[280]

124. As in the *2010 Open Internet Order*, we continue to recognize that in order to optimize the end-user experience, broadband providers must be permitted to engage in reasonable network management practices. We emphasize, however, that to be eligible for consideration under the reasonable network management exception, a network management practice that would otherwise violate the no-throttling rule must be used reasonably and primarily for network management purposes, and not for business purposes.[281]

c. No Paid Prioritization

125. In the *2014 Open Internet NPRM*, the Commission sought comment on suggestions to impose a flat ban on paid prioritization services, including whether all paid prioritization practices, or some of them, could be treated as *per se* violations of the commercially-reasonable standard or any other standard based on any source of legal authority.[282] For reasons explained below, we conclude that paid prioritization network practices harm consumers, competition, and innovation, as well as create disincentives to promote broadband deployment and, as such, adopt a bright-line rule against such practices. Accordingly, today we ban arrangements in which the broadband service provider accepts consideration (monetary or otherwise) from a third party to manage the network in a manner that benefits particular content, applications, services, or devices. We also ban arrangements where a provider manages its network in a manner that favors the content, applications, services or devices of an affiliated entity.[283] Any broadband provider that engages in such practices will be subject to enforcement action, including forfeitures and other penalties.[284] We adopt the following rule banning paid prioritization arrangements:

> *A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not engage in paid prioritization.*
>
> *"Paid prioritization" refers to the management of a broadband provider's network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity.*

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[280] Vimeo Comments at 11 (citing a 2011 study noting that "A rebuffering rate of 1% (i.e., a video pauses for 1 out of every 100 seconds) results in 5% less video watched overall. There is a '2-second rule' for video watching: People are willing to wait 2 seconds for a video to load, but the rate of abandonment increases significantly thereafter if the video doesn't load. Viewer patience is influenced by the expectation of speed from the viewing platform and the perceived value of the content. Bad viewing experiences lead not just to abandonment of a particular video, but also to a lower rate of watching other videos."); Golden Frog Comments at 5-6 (discussing allegations of anti-competitive behavior by broadband service providers, including those involving blocking and throttling).

[281] *See infra* Section III.D.3. While not within the definition of "throttling" for purposes of our no-throttling rule, the slowing of subscribers' content on an application agnostic basis, including as an element of subscribers' purchased service plans, will be evaluated under the transparency rule and the no-unreasonable interference/disadvantage standard.

[282] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5609, para. 138.

[283] We consider arrangements of this kind to be paid prioritization, even when there is no exchange of payment or other consideration between the broadband Internet access service provider and the affiliated entity.

[284] Other forms of traffic prioritization, including practices that serve a public safety purpose, may be acceptable under our rules as reasonable network management. *See infra* Section III.D.3.

126. The paid prioritization ban we adopt today is based on the record that has developed in this proceeding. The record is rife with commenter concerns regarding preferential treatment arrangements, with many advocating a flat ban on paid prioritization.[285] Commenters assert that permitting paid prioritization will result in the bifurcating of the Internet into a "fast" lane for those willing and able to pay and a "slow" lane for everyone else.[286] As several commenters observe, allowing for the purchase of priority treatment can lead to degraded performance—in the form of higher latency, increased risk of packet loss, or, in aggregate, lower bandwidth—for traffic that is not covered by such an arrangement.[287] Commenters further argue that paid prioritization will introduce artificial barriers to entry, distort the market, harm competition,[288] harm consumers,[289] discourage innovation,[290] undermine

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[285] *See, e.g.*, Internet Association Comments at 16; Y Combinator Comments at 3; Reddit Comments at 11; Ben Holt Comments at 1; Consumers Union Comments at 5; AALL Comments at 3; AAPD Comments at 4.

[286] *See, e.g.*, Higher Education and Libraries Comments at 12 ("Many institutions that serve the public interest, such as libraries, colleges and universities, may not be able to afford to pay extra fees simply for the transmission of their content and could find their Internet traffic relegated to chokepoints."); Rural Broadband Policy Group Comments at 9 ("Allowing Internet service providers to sell fast lanes to those who can afford them would permit the redlining of rural towns and customers who cannot pay for the fast lanes."); Vimeo Comments at 9-10 (stating that "[i]f broadband providers can make marginal revenue from priority access fees, they will have little incentive to maintain a high-quality 'standard lane' experience for edge providers unwilling or unable to pay"); Public Knowledge Comments at 37 ("Because the fast lane will produce premium revenue for ISPs, ISPs have every incentive to construct a slow lane that performs poorly enough to justify extra payments from those edge services who can afford to do so."); Engine Advocacy Reply at 5 ("[P]aid prioritization schemes, once implemented, will result in Internet fast lanes for well-heeled incumbents, relegating startups and the economic growth they create to the slow lane.").

[287] *See* Mozilla Comments at 20 ("Prioritization is inherently a zero-sum practice, and inherently creates fast and slow lanes and prevents a level playing field."); Mozilla Reply at 15; Sandvine Comments at 9 ("At a moment in time, there is a fixed amount of bandwidth available to all applications, content, etc. on a given network. If one application has paid for more of that bandwidth (and this is how the priority is achieved) then there is less 'best efforts' bandwidth remaining for all other applications and content."). *But see* ADTRAN Reply at ii, 6, 16 (arguing that the zero-sum game theory is incorrect because it ignores the fact that broadband providers' capacity is not static); Letter from Justin (Gus) Hurwitz, Assistant Professor, University of Nebraska College of Law, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Nov. 3, 2014) (asserting that prioritization is not "zero sum").

[288] *See, e.g.*, Ad Hoc Comments at 19-20; Mozilla Reply at 16 (arguing that paid prioritization creates perverse incentives because "underinvestment in infrastructure is more appealing if the result is increased sales of a prioritized offering balancing out any loss in direct subscribers"); CDT Comments at 6 ("By degrading some traffic or prioritizing other traffic, broadband providers could effectively play favorites in the online marketplace, distorting competition among online content and applications."); Letter from Edyael Casaperalta, Rural Broadband Policy Group Coordinator, National Rural Assembly, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 and 10-127, at 3 (filed Oct. 20, 2014) (expressing concern that permitting paid prioritization and a "fast lane" will place rural companies at a competitive disadvantage); Letter from Austin C. Schlick, Director, Communications Law, Google, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 (filed Nov. 5, 2014) (asserting that paid prioritization "could create incentives for providers to maintain scarcity and congestion on their networks, in order to sell services that avoid these artificial conditions"); Vonage Reply at 5-6.

[289] *See, e.g.*, CCIA Reply at 17-18 (asserting that paid prioritization will harm consumers because these fees will be passed through to consumers); COMPTEL Comments at 10; Higher Education and Libraries Comments at 12 (asserting that "it is likely that those who *are* able to pay for preferential treatment will pass along their costs to their consumers and/or subscribers. In some cases, libraries and other public institutions may be among these subscribers who would then be forced to pay more for services they may broker on behalf of their patrons"); Internet Association Comments at 17; AOL Comments at 6-7; Free Press Comments at 25; Vermont Reply at 8; Letter from Erin P. Fitzgerald, Rural Wireless Association to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Nov. 14, 2014) (noting that "widespread paid prioritization arrangements could further adversely impact

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public safety and universal service,[291] and harm free expression.[292] Vimeo, for instance, argues that paid prioritization "would disadvantage user-generated video and independent filmmakers" that lack the resources of major film studios to pay priority rates for dissemination of content.[293] Engine Advocacy meanwhile asserts that "[s]ome unfunded early startups may not be able to afford [to pay for priority treatment] (particularly if the product would be data-intensive) and will not start a company," resulting in "reduce[d] entrepreneurship."[294] Commenters assert that if paid prioritization became widespread, it would make reliance on consumers' ordinary, non-prioritized access to the Internet an increasingly unattractive and competitively nonviable option.[295] The Commission's conclusion is supported by a well-established body of economic literature,[296] including Commission staff working papers.[297]

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competition and harm consumers"). *But see* Hance Haney Comments at 9 ("Scholars have observed that as states have reduced in-state long-distance access fees, 'the market induces carriers to pass-through most of the reduction in access rates.' There appears to be no reason to believe that a similar dynamic wouldn't occur in the context of a two-sided broadband market.").

[290] *See, e.g.*, Internet Association Comments at 17; Engine Advocacy Comments at 5 (explaining that if a startup's site does not load as quickly or its application is not as reliable, it will be harmed because "[u]sers will switch to competitors whose services receive better treatment, [u]sers will spend less money on e-commerce sites or view fewer pages on sites that garner advertising revenue through the number of page-views, and chill initial capital investment"); Linear Air Reply at 3-4; National Venture Capital Association Comments at 2.

[291] *See, e.g.*, Sandoval *Ex Parte* Letter at 2 (asserting that paid prioritization undermines public safety and universal service, and increases barriers to adopting Internet-based applications such as Internet-enabled demand response communications electric and gas utilities use to prevent power blackouts, forestall the need to build fossil-fueled power plants, promote environmental sustainability, and manage energy resources).

[292] *See, e.g.*, Illinois and NY Comments at 6 (asserting that "[i]f broadband providers can discriminate among content, they can effectively pick winners and losers, interfering with the public's ability to freely educate itself about political, cultural, and social issues – education that is critical to our democracy"); Ad Hoc Comments at 20 (asserting that paid prioritization would distort consumers' choices among content and edge providers); Church World Service *et al.* Reply at 1; Independent Filmmaker Organizations Reply at 3-6; City of Los Angeles Comments at 5.

[293] Vimeo Comments at 12 (capitalization omitted).

[294] Engine Advocacy Comments at 7.

[295] *See, e.g.*, CDT Comments at 18; Reddit Comments at 7; Y Combinator Comments at 2-3; Tumblr Reply at 8 ("[E]ven if a 'slow' lane remains reasonably fast, marginal differences in upload and streaming speeds moving forward would deter people from using slower services, and severely punish companies that cannot pay for prime access."); Vimeo Comments at 11 ("[M]erely having a 'fast-lane' for paid traffic will alter consumers' perception of the standard for speed, [because w]hen consumers become accustomed to receiving video at a certain delivery rate, that rate will become the *de facto* standard and everything else will be perceived as substandard. Consumers are unlikely to know (or care) about why a particular video takes two seconds to load or is constantly rebuffering, and will abandon those edge providers that they perceive as providing a slower and thus less enjoyable experience."); Kickstarter Comments at 3-4 ("Users will not accept slow load times and choppy videos.").

[296] The access provided by the core network is an intermediate input into the myriad of final products produced by edge providers. While it is granted that for a firm selling final goods, price discrimination can be both profitable and enhance welfare, it has been argued that the reverse is also true when intermediate goods are considered. *See* Michael L. Katz, *Price Discrimination and Monopolistic Competition* , 52 Econometrica 1453, 1453-71 (1984); Michael L. Katz, *Non-Uniform Pricing, Output and Welfare under Monopoly*, 50 Rev. of Economic Studies 37, 37-56 (1983); Michael L. Katz, *The Welfare Effects of Third-Degree Price Discrimination in Intermediate Good Markets*, 77 American Economic Rev. 154, 154-167 (1987); and Yoshihiro Yoshida*, Third Degree Price Discrimination in Input Markets: Output and Welfare*, 90 American Economic Rev. 240, 240-246 (2000).

127. It is well-established that broadband providers have both the incentive and ability to engage in paid prioritization.[298] In its *Verizon* opinion, the D.C. Circuit noted that providers "have powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users."[299] Indeed, at oral argument Verizon's counsel announced that "but for [the *2010 Open Internet Order*] rules we would be exploring [such] commercial arrangements."[300] While we appreciate that several broadband providers have claimed that they do not engage in paid prioritization[301] or that they have no plans to do so,[302] such statements do not have the force of a legal rule that prevents them from doing so in the future. The future openness of the Internet should not turn on the decision of a particular company. We are concerned that if paid prioritization practices were to become widespread, the damage to Internet openness could be difficult to reverse. We agree that "[u]nraveling a web of discriminatory deals after significant investments have been made, business plans have been built, and technologies have been deployed would be a complicated undertaking both logistically and politically."[303] Further, documenting the harms could prove challenging, as it is impossible to identify small businesses and new applications that are stifled before they become commercially viable.[304] Prioritizing some traffic over others based on payment or other consideration from an edge provider could fundamentally alter the Internet as a whole by creating artificial motivations and constraints on its use, damaging the web of relationships and interactions that define the value of the

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[297] Gerald W. Brock, *Telephone Pricing to Promote Universal Service and Economic Freedom*, OPP Working Paper Series No. 18 (1986); Jay M. Atkinson and Christopher C. Barnekov, *A Competitively Neutral Approach to Network Interconnection*, OPP Working Paper Series, No. 34 (2000).

[298] *See supra* Section III.B.2.a.

[299] *Verizon*, 740 F.3d at 645-46 (holding that the Commission has adequately supported and explained its conclusions that absent open Internet protections, broadband providers "represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment").

[300] *Verizon* Oral Arg. Tr. at 31 ("I'm authorized to state by my client [Verizon] today that but for these rules we would be exploring those commercial arrangements, but this order prohibits those, and in fact would shrink the types of services that will be available on the Internet.").

[301] *See, e.g.*, AT&T Comments at 30-31; Verizon Comments at 37; Sandvine Comments at 3 ("[T]o the best of our knowledge, none of the innovative service plans that Sandvine has helped implement across our customer base have involved payments between operators and edge providers for traffic priority—so-called Pay for Priority."); Letter from Randal S. Milch, Executive Vice President, Public Policy and General Counsel, Verizon, to Chairman Patrick J. Leahy, Committee on the Judiciary, U.S. Senate (Oct. 29, 2014) (Verizon Letter to Leahy). Further, these broadband providers argue that they have no incentive to engage in paid prioritization arrangements, as their own business plans depend upon an open Internet. *See, e.g.*, Verizon Comments at 5-10; Comcast Comments at 5-6; AT&T Comments at 21; Cox Comments at i; TWC Comments at 2; Charter Comments at 9; Cequel Reply at 3 (explaining that it "could not block an edge-based content provider without diminishing the value of its Internet service and losing customers to the formidable competitors it faces").

[302] For example, we note that in Verizon's letter to Chairman Leahy, the company states "[a]s we have said before, and affirm again here, Verizon has no plans to engage in paid prioritization of Internet traffic." Verizon Letter to Leahy at 1. However, in contrast to this statement, at oral argument in the *Verizon* case, counsel for Verizon explained that the company would pursue such arrangements if not for the 2010 Open Internet rules which prevented them. *See supra* note 300.

[303] CDT Comments at 5.

[304] *See, e.g.*, CDT Comments at 5; Etsy Comments at 8 ("[Under the proposed rules] many new startups that would have been founded will die in their infancy or never be created. How do you account for all the innovations that would never come to market because of these new rules?"); Reddit Comments at 9-10 ("If the Chairman's proposal had been law in 2005, reddit might not have gotten off the ground."); CodeCombat Comments at 5-7; Heyzap Comments at 2-3.

Internet for both end users and edge providers, and posing a risk of harm to consumers, competition, and innovation.[305] Thus, because of the very real concerns about the chilling effects that preferential treatment arrangements could have on the virtuous cycle of innovation, consumer demand, and investment, we adopt a bright-line rule banning paid prioritization arrangements.[306]

128. In arguing against such a ban, ADTRAN asserts that it would "cement the advantages enjoyed by the largest edge providers that presently obtain the functional equivalent of priority access by constructing their own extensive networks that interconnect directly with the ISPs."[307] We reject this argument. CDT correctly observes that "[e]stablished entities with substantial resources will always have a variety of advantages" over less established ones,[308] notwithstanding any rules we adopt. We do not seek to disrupt the legitimate benefits that may accrue to edge providers that have invested in enhancing the delivery of their services to end users. On the contrary, such investments may contribute to the virtuous cycle by stimulating further competition and innovation among edge providers, to the ultimate benefit of consumers. We also clarify that the ban on paid prioritization does not restrict the ability of a broadband provider and CDN to interconnect.[309]

129. We find that a flat ban on paid prioritization has advantages over alternative approaches identified in the record.[310] Prohibiting this practice outright will help to foster broadband network investment by setting clear boundaries of acceptable and unacceptable behavior. It will also protect consumers against a harmful practice that may be difficult to understand, even if disclosed. In addition, this approach relieves small edge providers, innovators, and consumers of the burden of detecting and

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[305] *See, e.g.*, ACLU Comments at 7 ("Were paid prioritization or other differential treatment permitted, edge providers with a first mover advantage would be able to entrench their market position *on the edge*, and then to pass along any overcharge imposed by broadband providers to consumers in their fees. The big content, application or device providers would be able to afford greater, faster or better access to broadband consumers while newer competitors would be put at an ever-growing disadvantage.").

[306] Some commenters argue that consumer disclosures about such practices are sufficient. *See, e.g.*, Bright House Comments at 29. However, the average consumer does not have the time or specialized knowledge to sort through the implications, and regardless, in many areas of the country, consumers simply do not have multiple, equivalent choices. *See* Illinois and NY Comments at 11-12. Further, as discussed above, switching costs can be a substantial deterrent. *See supra* Section III.B.2.

[307] ADTRAN Reply at 18.

[308] CDT Comments at 5; *see also* Intel Reply at 10 ("Absent persuasive evidence of anti-competitive conduct, companies that are disadvantaged by such innovation deserve no special assistance or protection. To do otherwise would frustrate competition and innovation, harming American consumers and business.").

[309] Letter from Scott Blake Harris, Counsel to Akamai, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Feb. 9, 2015) (requesting that "the final Open Internet Order should expressly state that CDN services do not constitute 'prioritization' as that term has been used in this proceeding").

[310] For example, AOL proposes to permit individual negotiations for priority services, but would prohibit them where the broadband provider is affiliated with an upstream edge provider; has market power; and also charges end users (i.e., no double-charging). AOL Comments at 5-8. AT&T proposes, as one option for addressing paid prioritization, the imposition of "additional transparency, no-blocking, and nondiscrimination rules on fixed broadband Internet access providers that do not agree voluntarily to refrain from entering into paid prioritization arrangements." AT&T Comments at 37-38; *see also* American Cable Association (ACA) Reply at 18 (stating that AT&T's proposal "appears to offer both adequate protections to edge providers and end users, while giving broadband ISPs the needed flexibility to manage their networks and create innovative service offerings"). Comcast proposes a rebuttable presumption against "paid prioritization" arrangements that would entirely preclude "exclusive arrangements and arrangements that prioritize a broadband provider's own affiliated Internet content vis-à-vis unaffiliated content" and place a heavy burden on the broadband provider to justify any other "paid prioritization" arrangement. Comcast Comments at 24.

challenging instances of harmful paid prioritization.[311] Given the potential harms to the virtuous cycle, we believe it is more appropriate to impose an *ex ante* ban on such practices, while entertaining waiver requests under exceptional circumstances.

130. Under our longstanding waiver rule, the Commission may waive any rule "in whole or in part, for good cause shown."[312] General waiver of the Commission's rules is appropriate only if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.[313] In some cases, however, the Commission adopts specific rules concerning the factors that will be used to examine a waiver or exemption request.[314] We believe that such guidance is appropriate here to make clear the very limited circumstances in which the Commission would be willing to allow paid prioritization. Accordingly, we adopt a rule concerning waiver of the paid prioritization ban that establishes a balancing test, as follows:

> *The Commission may waive the ban on paid prioritization only if the petitioner demonstrates that the practice would provide some significant public interest benefit and would not harm the open nature of the Internet.*

131. In support of any waiver request, the applicant therefore must make two related showings. First, the applicant must demonstrate that the practice will have some significant public interest benefit, such as providing evidence that the practice furthers competition, innovation, consumer demand, or investment. Second, the applicant must demonstrate that the practice does not harm the nature of the open Internet, including, but not limited to, providing evidence that the practice:

- does not materially degrade or threaten to materially degrade the broadband Internet access service of the general public;
- does not hinder consumer choice;
- does not impair competition, innovation, consumer demand, or investment; and

[311] *See, e.g.*, eBay Comments at 4-5; CCIA Comments 31-32; CCIA Reply at 15-16 (expressing concern that the commercially reasonable standard will necessarily increase the costs of seeking relief from unlawful conduct, and will thus contravene the Commission's stated goal of providing meaningful enforcement measures to small businesses); Kickstarter Comments at 3 ("We would have no real recourse if we were offered an unfair price. Using our small legal team or hiring outside counsel to prove that an offered deal was 'commercially unreasonable' . . . would take far too long and cost far too much to be a feasible option."); CCIA Reply at 13-14 ("Putting the onus on edge providers, most of whom lack regulatory and legal experience anywhere comparable to that of [broadband providers], to show anticompetitive conduct through individual administrative proceedings will almost certainly lead to a situation where edge providers (particularly startups and smaller companies) cannot avail themselves of the protections provided in this rulemaking."); Netflix Comments at 10 ("Weighing the cost of an administrative proceeding and the uncertainty of success, many edge providers likely will choose to forego engagement with the Commission."); Y Combinator Comments at 3 ("No startup has the funds and lawyers and economists to take on billion-dollar ISPs in an FCC action based on the vague legal standards in the proposal. Indeed, the startup ecosystem needs a bright-line, per se rule against discrimination."); Free Press Comments at 136 ("This regime would shift the burden to prove such practices commercially unreasonable onto Internet users and edge providers who can least afford to bear that burden."); MobileWorks Reply at 6.

[312] 47 C.F.R. § 1.3.

[313] *See WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

[314] *See, e.g.*, 47 C.F.R. § 79.1(f) ("Procedures for exemptions [from closed captioning requirements] based on economically burdensome standard.").

- does not impede any forms of expressions, types of service, or points of view.

132. An applicant seeking waiver relief under this rule faces a high bar. We anticipate granting such relief only in exceptional cases.[315]

2. No Unreasonable Interference or Unreasonable Disadvantage Standard for Internet Conduct

133. In the *2014 Open Internet NPRM*, the Commission tentatively concluded that it should adopt a rule requiring broadband providers to use "commercially reasonable" practices in the provision of broadband Internet access service, and sought comment on this approach.[316] The Commission also sought comment on whether there were alternative legal standards that the Commission should consider,[317] or whether it should adopt a rule that prohibits unreasonable discrimination and, if so, what legal authority and theories it should rely upon to do so.[318] In addition, the Commission sought comment on how it can ensure that the rule it adopts sufficiently protects against harms to the open Internet, including broadband providers' incentives to disadvantage edge providers or classes of edge providers in ways that would harm Internet openness.[319]

134. The Commission sought comment on what factors it should adopt to ensure commercially reasonable practices that will protect and promote Internet openness, and tentatively concluded that a review of the totality of the circumstances should be preserved to ensure that rules can be applied evenly and fairly in response to changing circumstances.[320] The Commission also recognized that there have been significant changes in the mobile marketplace since 2010, and sought comment on whether and, if so, how these changes should affect the Commission's treatment of mobile services under the rules.[321]

135. *Preventing Unreasonable Interference or Unreasonable Disadvantage that Harms*

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[315] For instance, several commenters argue that paid prioritization arrangements could improve the provision of telemedicine services. *See, e.g.*, California Telehealth Network (CTN) Reply at 7, 9 (explaining that as full motion synchronous video conferencing becomes more necessary for digital diagnosis and treatment, as required by many telehealth services, the total bandwidth consumption in the Internet ecosystem for telehealth will grow, encouraging investment and deployment); AALL Comments at 2 ("Health sciences libraries also provide Internet access to images that support telemedicine, particularly in remote areas where Internet service can be disproportional or uneven and to reach the underserved."); MMTC Comments at 11 (arguing that the Commission should employ a "rebuttable presumption against paid prioritization . . . while ensuring that such presumption can be overcome by business models that sufficiently protect consumers and have the potential to benefit consumer welfare," such as telemedicine applications). We note that telemedicine services might alternatively be structured as "non-BIAS data services," which are beyond the reach of the open Internet rules. *See infra* Section III.D.3.

[316] *2014 Open Internet NPRM*, 29 FCC Rcd at 5602, para. 116. The Commission also tentatively concluded that it should operate separately from the proposed no-blocking rule, i.e., conduct acceptable under the no-blocking rule would still be subject to independent examination under the "commercially reasonable" standard, and sought comment on this approach. *Id.* at 5602, para. 117.

[317] *Id.* at 5603, para. 119.

[318] *Id.* at 5604, para. 121.

[319] *Id*.

[320] *Id.* at 5604-05, paras. 122-23.

[321] *Id.* at 5583-84, para. 62. Specifically, the Commission sought comment on whether, under the commercially reasonable rule, mobile networks should be subject to the same totality-of-the circumstances test as fixed broadband, and whether the Commission should apply the commercially reasonable legal standard to mobile broadband. *Id.* at 5609, para. 140.

Consumers and Edge Providers. The three bright-line rules that we adopt today prohibit specific conduct that harms the open Internet. The open nature of the Internet has allowed new products and services to flourish and has broken down geographic barriers to communication, allowing information to flow freely. We believe the rules we adopt today will alleviate many of the concerns identified in the record regarding broadband provider practices that could upset these positive outcomes. However, while these three bright-line rules comprise a critical cornerstone in protecting and promoting the open Internet, we believe that there may exist other current or future practices that cause the type of harms our rules are intended to address. For that reason, we adopt a rule setting forth a no-unreasonable interference/disadvantage standard, under which the Commission can prohibit, on a case-by-case basis, practices that unreasonably interfere with or unreasonably disadvantage the ability of consumers to reach the Internet content, services, and applications of their choosing or of edge providers to access consumers using the Internet.

136. It is critical that access to a robust, open Internet remains a core feature of the communications landscape, but also that there remains leeway for experimentation with innovative offerings. Based on our findings that broadband providers have the incentive and ability to discriminate in their handling of network traffic in ways that can harm the virtuous cycle of innovation, increased end-user demand for broadband access, and increased investment in broadband network infrastructure and technologies,[322] we conclude that a no-unreasonable interference/disadvantage standard to protect the open nature of the Internet is necessary. We adopt this standard to prohibit practices in the broadband Internet access provider's network that harm Internet openness, similar to the approach proposed by the Higher Education coalition and the Center for Democracy and Technology.[323] Specifically, we require that

> *Any person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule.*[324]

137. This "no-unreasonable interference/disadvantage" standard will be applied to carefully balance the benefits of innovation against harm to end users and edge providers. It also protects free expression, thus fulfilling the congressional policy that the Internet "offer[s] a forum for true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity."[325] As the Commission found in 2010, and the *Verizon* court upheld, "[r]estricting edge providers' ability to reach end users, and limiting end users' ability to choose which edge providers to patronize, would reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure. Similarly, restricting the ability of broadband providers to put the network to

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[322] *See supra* Section III.B.2.

[323] *See, e.g.*, Higher Education and Libraries Comments at 23-24 (proposing a standard more directly related to the "unique and open character of the Internet," what they termed "Internet reasonable"); CDT Comments at 19; CDT Reply at 3.

[324] As in the no throttling rule, we include classes of content, applications, services, or devices.

[325] 47 U.S.C. § 230(a)(3).

innovative uses may reduce the rate of improvements to network infrastructure."[326] Under the standard that we adopt today, the Commission can protect against harm to end users' or edge providers' ability to use broadband Internet access service to reach one another.[327] Compared to the no unreasonable discrimination standard adopted by the Commission in 2010, the standard we adopt today is specifically designed to protect against harms to the open nature of the Internet. We note that the standard we adopt today represents our interpretation of sections 201 and 202 in the broadband Internet access context and, independently, our interpretation—upheld by the *Verizon* court—that rules to protect Internet openness promote broadband deployment via the virtuous cycle under section 706 of the 1996 Act.[328]

a. Factors to Guide Application of the Rule

138. We adopt our tentative conclusion to follow a case-by-case approach, considering the totality of the circumstances, when analyzing whether conduct satisfies the no-unreasonable interference/disadvantage standard to protect the open Internet.[329] Below we discuss a non-exhaustive list of factors we will use to assess such practices. In adopting this standard, we enable flexibility in business arrangements and ensure that innovation in broadband and edge provider business models is not unduly curtailed.[330] We are mindful that vague or unclear regulatory requirements could stymie rather than encourage innovation,[331] and find that this approach combined with the factors set out below will provide sufficient certainty and guidance to consumers, broadband providers, and edge providers—particularly smaller entities that might lack experience dealing with broadband providers—while also allowing parties flexibility in developing new services.[332] We note that in addition to the following list, there may be

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[326] *2010 Open Internet Order*, 25 FCC Rcd at 17911, para. 14; *see also* Higher Education and Libraries Comments at 23 (stating that "the Internet itself is fundamentally an ecosystem that supports a myriad of personal, institutional, community, and commercial relationships and interests," and, as with any other ecosystem, "if the conditions that foster those relationships and interests are negatively impacted, the system as a whole is subject to collapse").

[327] *See, e.g.*, Akamai Comments at 11 ("[T]he Commission should take only those actions that are necessary and narrowly tailored to promote competition, innovation, and the growth of broadband networks that inure to benefit the public.").

[328] *See* 47 U.S.C. §§ 201, 202, 208; *see also* Section IV; *AT&T Corp. v. Business Telecom, Inc.; Sprint Comms. Company, L.P. v. Business Telecom, Inc.*, EB-01-MD-001, EB-01-MD-002, Memorandum Opinion and Order, 16 FCC Rcd 12312 (2001) (granting in part a complaint filed under section 208 that a telecommunications service provider's access rates were and are unjust and unreasonable under section 201(b) of the Act).

[329] *2014 Open Internet NPRM*, 29 FCC Rcd at 5608, para. 136; CDT and ALA Reply at 2.

[330] This is in contrast to the inflexibility that the *Verizon* court found was a flaw in the 2010 unreasonable discrimination standard. *See supra* note 96. We also note that this approach addresses concerns in the record that "[a] 'general conduct rule,' applied on a case-by-case basis with the only touchstone being whether a given practice 'harms' consumers or edge providers, may lead to years of expensive litigation to determine the meaning of 'harm' (for those who can afford to engage in it)." Letter from Corynne McSherry, Intellectual Property Director, EFF, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Feb. 19, 2015) (EFF Feb. 19, 2015 *Ex Parte* Letter). Understanding that such an unfocused approach could harm the results of our rule, we "spell out, in advance, the contours and limits of [the] rule," as was suggested in the record. *See, e.g.*, *id.*

[331] *See, e.g.*, Akamai Comments at 10; CALinnovates Reply at 19 (stating that "regulatory clarity may significantly affect the calculus of current and potential investors"); Higher Education and Libraries Reply at 11-14 (asserting that a clearly articulated standard focused on preserving the existing Internet would set expectations and provide guidance to the market, but would avoid hard and fast rules that might be too rigid for a rapidly changing broadband ecosystem); CDT and ALA Reply at 2.

[332] CDT and ALA Reply at 2. We also note that this Order permits parties to seek advisory opinions regarding application of the Commission's open Internet rules. We view these processes as complementary methods by which parties can seek guidance as to how the open Internet rules apply to particular conduct. *See infra* Section III.E.

other considerations relevant to determining whether a particular practice violates the no-unreasonable interference/disadvantage standard. This approach of adopting a rule of general conduct, followed by guidance as to how to apply it on a case-by-case basis, is not novel. The Commission took a similar approach in 2010 when it adopted the "no unreasonable discrimination" rule, which was followed by a discussion of four factors (end-user control, use-agnostic discrimination, standard practices, and transparency).[333] Indeed, for this new rule, we are providing at least as much guidance, if not more, as we did in 2010 for the application of the no unreasonable discrimination rule.

139. *End-User Control.* A practice that allows end-user control and is consistent with promoting consumer choice is less likely to unreasonably interfere with or cause an unreasonable disadvantage affecting the end user's ability to use the Internet as he or she sees fit.[334] The Commission has long recognized that enabling consumer choice is the best path toward ensuring competitive markets, economic growth, and technical innovation.[335] It is therefore critical that consumers' decisions, rather than those of service providers, remain the driving force behind the development of the Internet.[336] To this end, practices that favor end-user control and empower meaningful consumer choice are more likely to satisfy the no-unreasonable interference/disadvantage standard than those that do not. However, as was true in 2010, we are cognizant that user control and network control are not mutually exclusive, and that many practices will fall somewhere on a spectrum from more end-user-controlled to more broadband provider-controlled.[337] Further, there may be practices controlled entirely by broadband providers that nonetheless satisfy the no-unreasonable interference/disadvantage standard. In all events, however, we emphasize that such practices should be fully transparent to the end user and effectively reflect end users' choices.

140. *Competitive Effects*. As the Commission has found previously, broadband providers have incentives to interfere with and disadvantage the operation of third-party Internet-based services that compete with the providers' own services.[338] Practices that have anti-competitive effects in the market for

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[333] *2010 Open Internet Order*, 25 FCC Rcd at 17944-46, paras. 68-74.

[334] *Id.* at 17944, para. 71; *see also* EFF Feb. 19, 2015 *Ex Parte* Letter at 2 (suggesting that the Commission should take into consideration "whether the practice preserves user choice").

[335] *See supra* Section III.A; *see also, e.g.*, Verizon Comments at 16-17; Syntonic Reply at 5-6; van Schewick Feb. 18, 2015 *Ex Parte* Letter, Attach. at 14 ("Letting users, not network providers, choose which applications will be successful is an important part of the mechanism that produces innovation under uncertainty. At the same time, letting users choose how they want to use the network enables them to use the Internet in a way that creates more value for them (and for society) than if network providers made this choice for them.").

[336] *See* Netflix Comments at 5 ("Through an open Internet, the consumer, not the ISP or the edge provider, picks the winners and the losers."); Vonage Comments at 13 ("Allowing ISPs to select winners and losers will certainly chill investment and innovation in startups because they will lack the ability to develop a following among users without getting past the ISP gatekeeper."); AT&T Comments at 27-30 (distinguishing beneficial user-directed prioritization agreements from harmful paid-prioritization agreements initiated by service providers); Ad Hoc Comments at 22-23. Notably, under section 230(b) of the Communications Act, increased user control is an express objective of modern telecommunications policy. 47 U.S.C. § 230(b)(3) (directing policymakers "to encourage the development of technologies which maximize user control over what information is received by individuals . . . who use the Internet and other interactive computer services").

[337] *2010 Open Internet Order*, 25 FCC Rcd at 17944-45, para 71.

[338] *See supra* Section III.B.2.a; *2010 Open Internet Order*, 25 FCC Rcd at 17916, para. 22. The Commission adopted a similar restriction to address harms raised by the Comcast-NBCU transaction. *See Comcast/NBCU Merger Order*, 26 FCC Rcd at 4275, para. 94 ("[N]either Comcast nor Comcast-NBCU shall prioritize affiliated Internet content over unaffiliated Internet content.").

applications, services, content, or devices would likely unreasonably interfere with or unreasonably disadvantage edge providers' ability to reach consumers in ways that would have a dampening effect on innovation, interrupting the virtuous cycle. As such, these anticompetitive practices are likely to harm consumers' and edge providers' ability to use broadband Internet access service to reach one another. Conversely, enhanced competition leads to greater options for consumers in services, applications, content, and devices, and as such, practices that would enhance competition would weigh in favor of promoting consumers' and edge providers' ability to use broadband Internet access service to reach one another.[339] In examining the effect on competition of a given practice, we will also review the extent of an entity's vertical integration as well as its relationships with affiliated entities.

141. *Consumer Protection*. The no-unreasonable interference/disadvantage standard is intended to serve as a strong consumer protection standard. It prohibits broadband providers from employing any deceptive or unfair practice that will unreasonably interfere with or disadvantage end-user consumers' ability to select, access, or use broadband services, applications, or content, so long as the services are lawful, subject to the exception for reasonable network management. For example, unfair or deceptive billing practices, as well as practices that fail to protect the confidentiality of end users' proprietary information, will be unlawful if they unreasonably interfere with or disadvantage end-user consumers' ability to select, access, or use broadband services, applications, or content, so long as the services are lawful, subject to the exception for reasonable network management. While each individual case will be evaluated on its own merits, this rule is intended to include protection against fraudulent practices such as "cramming" and "slamming" that have long been viewed as unfair and disadvantageous to consumers.

142. *Effect on Innovation, Investment, or Broadband Deployment*. As the *Verizon* court recognized, Internet openness drives a "virtuous cycle" in which innovations at the edges of the network enhance consumer demand, leading to expanded investments in broadband infrastructure that, in turn, spark new innovations at the edge.[340] As such, practices that stifle innovation, investment, or broadband deployment would likely unreasonably interfere with or unreasonably disadvantage end users' or edge providers' use of the Internet under the legal standard we set forth today.[341]

143. *Free Expression*. As Congress has recognized, the Internet "offer[s] a forum for a true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity."[342] Practices that threaten the use of the Internet as a platform for free expression would likely unreasonably interfere with or unreasonably disadvantage consumers' and edge providers'

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[339] *See, e.g.*, Verizon Comments at 35; Free State Reply at 3 ("The welfare of consumers should be the focus and deciding criterion for Commission broadband policy."); Free State Reply at 12.

[340] *Verizon*, 740 F.3d at 659.

[341] *See, e.g.*, EFF Feb. 19, 2015 *Ex Parte* Letter at 2 (suggesting that the Commission should take into consideration "whether and how the practice impacts the cost of …innovation"); Letter from Vimeo, LLC, et al. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Feb. 19, 2014) (asking that the general conduct rule take into consideration whether a challenged practice "keeps application development and innovation costs low"); *see also* Akamai Reply at 2 ("Innovative traffic platforms and networks have thus been key in facilitating the virtuous circle through which increased broadband Internet usage drives increased investment by service and content providers, which in turn drives further usage."); Nokia Reply at 5 ("It is important that the Commission recognize that operators and infrastructure providers are a critical element of this virtuous cycle of innovation."); Nokia Reply at 8 ("Value creation in all segments of the broadband marketplace is a critical component of maintaining the level of innovation seen in the last decade.").

[342] 47 U.S.C.§ 230(a)(3); *see also Reno v. ACLU*, 521 U.S. 844, 853 (1997) ("No single organization controls any membership in the Web, nor is there any single centralized point from which individual Web sites or services can be blocked from the Web.") (internal citation omitted).

ability to use BIAS to communicate with each other, thereby causing harm to that ability. Further, such practices would dampen consumer demand for broadband services, disrupting the virtuous cycle, and harming end user and edge provider use of the Internet under the legal standard we set forth today.[343]

144. *Application Agnostic.* Application-agnostic (sometimes referred to as use-agnostic) practices likely do not cause an unreasonable interference or an unreasonable disadvantage to end users' or edge providers' ability to use BIAS to communicate with each other.[344] Application-agnostic practices do not interfere with end users' choices about which content, applications, services, or devices to use, nor do they distort competition and unreasonably disadvantage certain edge providers.[345] As such, they likely would not cause harm by unreasonably interfering with or disadvantaging end users or edge providers' ability to communicate using BIAS.

145. *Standard Practices.* In evaluating whether a practice violates our no-unreasonable interference/disadvantage standard to protect Internet openness, we will consider whether a practice conforms to best practices and technical standards adopted by open, broadly representative, and independent Internet engineering, governance initiatives, or standards-setting organization.[346] Consideration of input from technical advisory groups accounts for the important role these organizations have to play in developing communications policy.[347] We make clear, however, that we are not delegating authority to interpret or implement our rules to outside bodies.

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[343] *See, e.g.*, AAJC Comments at 2; ACLU Comments at 2 ("As information technology advances apace, the meaningful exercise of our constitutional rights—including the freedoms of speech, assembly, press and the right to petition government—has become literally dependent on broadband Internet access."); American Public Media Group Comments at 3; CDT Comments at 5; OTI Comments at 3; *see also* EFF Feb. 19, 2015 *Ex Parte* Letter at 2 (suggesting that the Commission should take into consideration "whether and how the practice impacts the cost of free speech"). We also note that the no-unreasonable interference/disadvantage standard does not unconstitutionally burden any of the First Amendment rights held by broadband providers because broadband providers are conduits, not speakers, with respect to broadband Internet access services. *See infra* Section VI.A.

[344] A network practice is application-agnostic if it does not differentiate in treatment of traffic, or if it differentiates in treatment of traffic without reference to the content, application, or device. A practice is application-specific if it is not application-agnostic. Application-specific network practices include, for example, those applied to traffic that has a particular source or destination, that is generated by a particular application or by an application that belongs to a particular class of applications, that uses a particular application- or transport- layer protocol, or that has particular characteristics (e.g., the size, sequencing, and/or timing of packets). *See 2010 Open Internet Order*, 25 FCC Rcd at 17938, para. 56 (application-specific); *id.* at 17945, para. 73 (application-agnostic); BITAG Congestion Report at 19 (discussing which traffic is subject to congestion management); *see also, e.g.*, van Schewick Sept. 19, 2014 *Ex Parte* Letter, Attach. at 24; Mozilla Reply at 22; i2 Coalition Comments at 43; OTI Comments at iv. We note, however, that there do exist circumstances where application-agnostic practices raise competitive concerns, and as such may violate our standard to protect the open Internet. *See infra* para. 153.

[345] *See 2010 Open Internet Order*, 25 FCC Rcd at 17945-46, para. 73; van Schewick Sept. 19, 2014 *Ex Parte* Letter; Van Schewick April 17 *Ex Parte* Letter, Attach. at 3-4; OTI Comments at iv (asserting that the Commission should allow application-agnostic discrimination); *see also* CDT Comments at 7; Common Cause Comments at 8-9; EFF Feb. 19, 2015 *Ex Parte* Letter at 2 (suggesting that the Commission should take into consideration "whether the practice is application agnostic"); *but see* ITIF Comments at 17, n.36 ("While Comcast's current transparent, application agnostic network management practices are likely preferable over application specific congestion management, in some cases application specific management may be necessary.").

[346] *See 2010 Open Internet Order*, 25 FCC Rcd at 17946, para. 74.

[347] *See* Comcast Comments at 70 (noting the benefits of government-industry collaboration in telecommunications policymaking); ITIF Comments at 20; Verizon Comments at 17; WISPA Comments at 35; Mozilla Reply at 22; MDTC Comments at 5-6; *see also 2010 Open Internet Order*, 25 FCC Rcd at 17946, para. 74.

b. Application to Mobile

146. As discussed earlier, because of changes that have occurred in the mobile marketplace since 2010, including the widespread deployment of 4G LTE networks and the significant increase in use of mobile broadband Internet access services, we find that it is appropriate to revise our approach for mobile broadband and apply the same openness protections to both fixed and mobile broadband Internet access services, including prohibiting mobile broadband providers from engaging in practices that harm Internet openness.[348] We find that applying the no-unreasonable interference/disadvantage standard to mobile broadband services will help ensure that consumers using mobile broadband services are protected against provider practices that would unreasonably restrict their ability to access a free and open Internet.

147. AT&T, T-Mobile, and Verizon oppose application of a "commercially reasonable practices" rule to mobile broadband networks. They argue that competition in the mobile broadband market already ensures that service providers have no incentive to discriminate.[349] CTIA argues that applying a commercial reasonableness standard would deter innovation and limit the ability of providers to differentiate themselves in the marketplace because providers would have to factor in the risk of complaints and investigations.[350] Nokia argues that the Commission should ensure that its rules allow a range of service options.[351] Free State recommends that if the Commission adopts a legally enforceable standard, it should establish a presumption that mobile network management practices benefit consumer welfare and that presumption could only be overcome "by actual evidence of anticompetitive conduct."[352]

148. We find that even if the mobile market were sufficiently competitive, competition alone is not sufficient to deter mobile providers from taking actions that would limit Internet openness. As noted above, there have been incidents where mobile providers have acted in a manner inconsistent with open Internet principles and we find that there is a risk that providers will continue to have the incentive to take actions that would favor their own content or services.[353] We also agree with commenters that mobile providers' need for flexibility to manage their network can be accommodated through the reasonable network management exception.[354]

149. In addition, we find that applying the no-unreasonable interference/disadvantage standard to mobile broadband will not affect providers' ability to differentiate themselves in the marketplace. We have crafted the standard we adopt today to prohibit these practices that harm Internet openness while still permitting innovation and experimentation. Nothing in the standard restricts carriers from developing new services or implementing new business models.

c. Rejection of the "Commercially Reasonable" Standard

150. Based on the record before us, we are persuaded that adopting a legal standard prohibiting commercially unreasonable practices is not the most effective or appropriate approach for

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[348] *See infra* Section III.D.

[349] AT&T Reply at 74-75; T-Mobile Reply at 7; Verizon Reply at 32-33.

[350] CTIA Reply at 27-30; Letter from Scott Bergmann, Vice President – Regulatory Affairs, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 3 (filed Oct. 3, 2014).

[351] Nokia Reply at 8.

[352] Free State Reply at 3.

[353] *See supra* Section III.B.2.

[354] CDT Comments at 28.

protecting and promoting an open Internet.[355] Internet openness involves many relationships that are not business-to-business and serves many purposes that are noncommercial.[356] Commenters also expressed concerns that the commercially reasonable standard would involve a multifactor framework that was not focused on the goals of this open Internet proceeding.[357] In addition, some commenters expressed concern that the legal standard would require permission before innovation, thus creating higher barriers to entry and attendant transaction costs.[358] Smaller edge providers expressed concern that they do not have the resources to fight against commercially unreasonable practices, which could result in an unfair playing field before the Commission.[359] Still others argued that the standard would permit paid prioritization, which could disadvantage smaller entities and individuals.[360] Given these concerns, we decline to adopt our proposed rule to prohibit practices that are not commercially reasonable. Instead, as discussed above, we adopt a governing standard that looks to whether consumers or edge providers face unreasonable interference or unreasonable disadvantages, and makes clear that the standard is not limited to whether a practice is agreeable to commercial parties.

d. Sponsored Data and Usage Allowances

151. While our bright-line rule to treat paid prioritization arrangements as unlawful addresses

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[355] *See, e.g.*, CDT Comments at 19; Free Press Comments at 8-9; Public Knowledge Comments at 31; MLB Advanced Media Comments at 2-3; Microsoft Comments at 13-14; Internet Association Comments at 16; Sandoval *Ex Parte* Letter at 2 (asserting that the commercial reasonableness rule would deter investment and Internet applications, such as Internet-enabled "Smart beds," which read a patient's vital signs and send aggregated data on available beds to mass casualty and disaster planners who use this information to determine which hospital has an available bed in a burn unit).

[356] CDT Comments at 18-19; *see also* Higher Education and Libraries Reply at 9-10; CDT and ALA Comments at 1. In the data roaming context, two commercial entities deal directly with one another to negotiate a fee-for-service agreement, and there is a direct business relationship with contractual privity and a purely commercial purpose on both sides of the transaction. Open Internet protections, by contrast, apply to a context where there may be no direct negotiation and no direct agreement between key parties. Moreover, while broadband providers are commercial entities with commercial purposes, many of the parties seeking to route traffic to broadband subscribers are not. CDT Comments at 18-19; *see also* AARP Comments at 37 (noting the difficulty of analyzing broadband providers' relationships with millions of different edge providers under a data roaming-style "commercially reasonable" rubric).

[357] *See, e.g.*, AARP Comments at 35-38; ADTRAN Comments at 26-28; Internet Association Comments at 16.

[358] *See, e.g.*, Ad Hoc Comments at 21-22 (a commercially reasonable standard "will necessarily be complex, inexact, and massively fact-driven"); Consumers Union Reply at 2-3 (commercially reasonable standard is vague and unenforceable, and allows individualized negotiations to be left to private parties with motivations that may not necessarily be in the interest of consumers); eBay Comments at 4-5.

[359] *See, e.g.*, Tumblr Reply at 10 ("Tumblr cannot afford to engage in what would likely be multi-year challenges against the biggest broadband providers, with large legal teams experienced in telecommunications law, simply to secure access for its users equal to that of its current, and future, competitors with deeper resources."); Etsy Comments at 7 (arguing that a prohibition on commercially unreasonable transactions "creates an unacceptable level of uncertainty for small companies and will be too costly to enforce"); Reddit Comments at 8; Engine Advocacy Comments at 15; CodeCombat Comments at 7.

[360] *See, e.g.*, Illinois and NY Comments at 5-84; CCIA Reply at 17; i2Coaltion Comments at 10 ("Start-ups that require priority service may not be able to bring their product to market without significant outside investment and investors will be affected by the increased equity needs of entrepreneurs."); AAJC Comments at 5 ("A commercially reasonable standard where certain forms of prioritization are allowed benefits those with financial resources. Such prioritization would negatively impact many minority entrepreneurs who come from historically disadvantaged communities with lower incomes and educational opportunities . . . .").

technical prioritization, the record reflects mixed views about other practices, including usage allowances and sponsored data plans. Sponsored data plans (sometimes called zero-rating) enable broadband providers to exclude edge provider content from end users' usage allowances. On the one hand, evidence in the record suggests that these business models may in some instances provide benefits to consumers, with particular reference to their use in the provision of mobile services. Service providers contend that these business models increase choice and lower costs for consumers.[361] Commenters also assert that sophisticated approaches to pricing also benefit edge providers by helping them distinguish themselves in the marketplace and tailor their services to consumer demands.[362] Commenters assert that such sponsored data arrangements also support continued investment in broadband infrastructure and promote the virtuous cycle,[363] and that there exist spillover benefits from sponsored data practices that should be

[361] *See, e.g.*, T-Mobile Reply at 17 (asserting that its Music Freedom program, which allows consumers to stream music without it counting against their data plan, is "innovative" and "pro-consumer" and that "Music Freedom does not discriminate among streaming music services"); Verizon Reply at 27-28 (contending that T-Mobile's Music Freedom, along with other similar initiatives, are evidence that consumer choice and competition "have ensured a differentiated marketplace"); CTIA Reply at 36; Sandvine Comments at 3-4, 7 (arguing that zero-rated applications have helped some people who otherwise could not afford access to some of their favorite services); Telefonica Reply at 7; Cequel Reply at 2, 6-7 ("Usage-based billing is not only a fair method of pricing, it is necessary for Suddenlink to bring broadband services to the often-remote communities that it serves. . . . If the FCC were to restrict usage-based billing, it would be restricting the future of broadband services in the very rural areas where it is trying to extend service."); Verizon Reply at 22 (asserting that usage-based pricing provides a way for consumers who are not heavy users to keep their costs down); ITIF Reply at 16 (arguing that zero rating arrangements "are likely welfare-enhancing, offering a service that meets consumer demand at a lower price point" and noting that they may be structured in an "application neutral" manner that "allow[s] consumers to continue to access new innovations at the edge"); Verizon Comments at 30-31, 34 (asserting that arrangements that address only pricing could make service cheaper for end users, enabling them to access more content when and where they want it, and could provide a way for interested content providers to promote and encourage use of their services"); Free State Reply at 3-4, 13; Syntonic Wireless Reply at 9; GAO Report at 26 (explaining that participants in all eight groups agreed that they would be more likely to access content that does not count toward their data limits than content that does).

[362] *See, e.g.*, USTelecom Reply at 46-47; Verizon Comments at 29-36; Ericsson Comments at 6-8, 14; ICLE & TechFreedom Comments at 16-41; ITIF Comments at 13-15; ARRIS Comments at 7-10; ADTRAN Reply at 5-13; Qualcomm Comments at 8-9; Sandvine Comments at 6-8; Free State Reply at 14-15 ("[T]he reality is that in order for the 'next Google' or the 'next Facebook' to compete against those well-entrenched giants, the putative new entrant might well be looking to negotiate some arrangement with a service provider that will give it a fighting chance of competing with the entrenched giants by differentiating itself."); Syntonic Wireless Reply at 9-10 (explaining that sponsored content is a way to differentiate one's product from the competition, and thus adds an additional plane of competition within edge provider markets); AT&T Reply at 77-78; CTIA Reply at 34-35 ("As the CEO of music streaming site Grooveshark remarked when T-Mobile added the company to the list of supported services, Music Freedom helps make little-known offerings available to a wider customer base[.]"); Telefonica Reply at 7; Letter from Susie Kim Riley, CEO, Aquto, Harjot Saluja, CEO, DataMi, Scott Schill, Producer, BBA Studios, Sam Gadodia, CEO LotusFlare, Gary Greenbaum, CEO, Syntonic, and Mike Nasco, CEO, Wazco, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 et al., at 1 (filed Jan. 22, 2015) ("Sponsored data and zero-rating arrangements hold great promise for content and edge providers, whether they are new entrants or incumbents, who can use them to promote innovative offerings, attract new customers, and grow a robust subscriber base.").

[363] *See, e.g.*, Verizon Comments at 31; Alcatel-Lucent Comments at 23-24 (asserting that sponsored data plans give consumers the opportunity to experience better service at no personal cost, which could facilitate a consumer experiencing the value of higher-tier service and adopting that higher-tier going forward" and that "[t]his increased consumer adoption would benefit the entire broadband ecosystem"); AT&T Reply at 77-79 (sponsored data plans can promote Internet openness by encouraging consumers to explore mobile online applications and content that they might otherwise not use); Verizon Reply at 22 (explaining that usage-based pricing promotes broadband adoption by "enabling customers to pay only for the services they wish to use, without having to subsidize higher-

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considered.[364] On the other hand, some commenters strongly oppose sponsored data plans, arguing that "the power to exempt selective services from data caps seriously distorts competition, favors companies with the deepest pockets, and prevents consumers from exercising control over what they are able to access on the Internet," again with specific reference to mobile services.[365] In addition, some commenters argue that sponsored data plans are a harmful form of discrimination.[366] The record also reflects concerns that such arrangements may hamper innovation and monetize artificial scarcity.[367]

152. We are mindful of the concerns raised in the record that sponsored data plans have the potential to distort competition by allowing service providers to pick and choose among content and application providers to feature on different service plans.[368] At the same time, new service offerings, depending on how they are structured, could benefit consumers and competition. Accordingly, we will look at and assess such practices under the no-unreasonable interference/disadvantage standard, based on the facts of each individual case, and take action as necessary.

153. The record also reflects differing views over some broadband providers' practices with

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end users"); CWA/NAACP Comments at 16-18; National Minority Organization Comments at 9; Free State Reply at 4, 13; CenturyLink Comments at 5-7 ("A two-sided market approach ensures that the costs of content and applications causing greater bandwidth consumption are ultimately passed on to the subscribers who use those services, ensures that adequate pricing signals are communicated to edge providers and, overall, produces the optimal economic outcome.").

[364] *See* Sandvine Comments at 6-7; Roslyn Layton Reply at 4 ("[A] content provider may want to subsidize the delivery of its content so that it can maximize viewing and viewers. We see this in the case of a health provider which wants to ensure that low-income pregnant women watch a series of pre-natal videos, a preventative form of health care that improves infant and mother outcomes. Similarly a health care provider would be willing to subsidize a mobile subscription of its members to encourage adoption of preventative health care and monitoring tools. The cost of avoiding an adverse health event is well worth the price of a broadband subscription. The health care member benefits with better health outcome and the health care provider reduces costs.").

[365] Consumers Union Reply at 5; NPR Comments at 11 (arguing that such sponsored services and data caps discourage "consumers from using their mobile devices to access the vital content provided by public radio via websites and apps"); Letter from John Bergmayer, Public Knowledge to Marlene H. Dortch, Secretary, FCC, MB Docket Nos. 14-57, 14-90, GN Docket Nos. 14-28, 10-127, 09-191, 13-5, 12-353, 09-51, WC Docket Nos. 07-52, 10-90, 96-45, 06-122, at 3 (filed Nov. 13, 2014) ("Mobile users' behavior is shaped in part by billing practices and pricing structures. As Horrigan finds, 'among the 55% of smartphone users with a data cap, more than half – 52% – have altered their online behavior because of the cap – either by not doing some online activities out of concern for hitting the limit or by waiting until they were in Wi-Fi range.'").

[366] *See, e.g.*, CFA Comments at 39 (describing AT&T's sponsored data plan on its mobile network as a form of discrimination); Consumers Union Comments at 13 (explaining that "[e]xempting certain affiliated services from data caps does not provide consumers with a meaningful choice. Instead, it pushes them to watch affiliated content out of fear that doing otherwise will count against their monthly caps and result in either overage charges or slower speeds").

[367] *See, e.g.*, Public Knowledge Comments at 21 (recounting concerns about harming innovation in relation to AT&T's "sponsored data" plan and T-Mobile's recently announced "Music Freedom" service); *id*. at 53 (arguing that "AT&T's Sponsored Data program allows it to monetize artificial scarcity and creates a disincentive to increase caps over time"); WGAW Reply at 36-37 (explaining that sponsored data services require "content providers and applications to pay for the data usage, but does nothing to address the capacity constraints so widely touted as problematic by wireless carriers"); Letter from Ademir Antonio Pereira, Jr. to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 09-191, Attach. at 7-8 (filed Feb. 19, 2015).

[368] *See supra* para. 151; *see also* Public Knowledge Comments at 21, 53-54.

respect to usage allowances (also called "data caps").[369] Usage allowances place limits on the volume of data downloaded by the end user during a fixed period. Once a cap has been reached, the speed at which the end user can access the Internet may be reduced to a slower speed, or the end user may be charged for excess data.[370] Usage allowances may benefit consumers by offering them more choices over a greater range of service options, and, for mobile broadband networks, such plans are the industry norm today, in part reflecting the different capacity issues on mobile networks.[371] Conversely, some commenters have expressed concern that such practices can potentially be used by broadband providers to disadvantage competing over-the-top providers.[372] Given the unresolved debate concerning the benefits and drawbacks of data allowances and usage-based pricing plans,[373] we decline to make blanket findings about these practices and will address concerns under the no-unreasonable interference/disadvantage on a case-by-case basis.

3. Transparency Requirements to Protect and Promote Internet Openness

154. In this section, we adopt enhancements to the existing transparency rule, which covers both content and format of disclosures by providers of broadband Internet access service. As the Commission has previously noted, disclosure requirements are among the least intrusive and most effective regulatory measures at its disposal.[374] We find that the enhanced transparency requirements

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[369] *See, e.g.*, CWA/NAACP Comments at 18-19; CFA Comments at 39 (expressing concern regarding Comcast's exemption of Xfinity online video app on Xbox and TiVo from data caps in 2012); Consumers Union Comments at 8; NPR Comments at 11; Nokia Comments at 8-10 (stating that "[t]he existence of data caps impacts content and OTT companies because these entities see a decline in traffic to their websites, applications, and other service platforms as the month progresses due to rationing by the consumer"); Public Knowledge Comments at 48-60 (asserting that usage-based billing could enable broadband providers to create metered and unmetered lanes, supposedly no different than the fast and slow lanes feared with paid prioritization); Roku Comments at 8; Telecommunications for the Deaf and Hard of Hearing et al Comments at iii, 15 (urging the Commission "to consider the disproportionate impact of data caps on people who are deaf or hard of hearing, who depend on data-intensive applications for basic communications"); T-Mobile Reply at 14-16 (describing consumer benefits of its "Simple Choice" plan); Writers Guild of America East and AFL-CIO Comments at 25; Tumblr Reply at 2.

[370] *See, e.g.*, U.S. Government Accountability Office, Report, Broadband Internet: FCC Should Track the Application of Fixed Internet Usage-Based Pricing and Help Improve Consumer Education, GAO-15-108, at 8 (Nov. 2014) (GAO Report).

[371] *See, e.g.*, T-Mobile Reply at 14-16 (noting that customers on T-Mobile's Simple Choice plan "can choose plans with unlimited high-speed data, or an allotment of high-speed data with unlimited data at 2G speeds after their allotment is used" and arguing that such plans are designed to "allow subscribers to decide what price they want to pay for what service, and still use as much mobile data as they want without incurring overage charges . . .").

[372] *See, e.g.*, Public Knowledge Comments at 51-52; Consumer's Union Reply at 5 ("If the largest mobile carriers exempt certain uses from their data caps, the effect is to push consumers to watch affiliated content out of fear that doing otherwise will count against their monthly caps.").

[373] Regarding usage-based pricing plans, there is similar disagreement over whether these practices are beneficial or harmful for promoting an open Internet. *Compare* Bright House Comments at 20 ("Variable pricing can serve as a useful technique for reducing prices for low usage (as Time Warner Cable has done) as well as for fairly apportioning greater costs to the highest users.") *with* Public Knowledge Comments at 58 ("Pricing connectivity according to data consumption is like a return to the use of time. Once again, it requires consumers keep meticulous track of what they are doing online. With every new web page, new video, or new app a consumer must consider how close they are to their monthly cap. . . . Inevitably, this type of meter-watching freezes innovation."), *and* ICLE & TechFreedom Policy Comments at 32 ("The fact of the matter is that, depending on background conditions, either usage-based pricing or flat-rate pricing could be discriminatory.").

[374] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5585, para. 66; *see also, e.g.*, Howard Beales, Richard Craswell & Steven C. Salop, *The Efficient Regulation of Consumer Information*, 24 J. L. & Econ. 491 at 513 (1981); Howard

(continued….)

adopted in the present Order serve the same purposes as those required under the *2010 Open Internet Order*: providing critical information to serve end-user consumers, edge providers of broadband products and services, and the Internet community. The transparency rule, including the enhancements adopted today, also will aid the Commission in enforcing the other open Internet rules and in ensuring that no service provider can evade them through exploitation of narrowly-drawn exceptions for reasonable network management or through evasion of the scope of our rules.

155. In the *2014 Open Internet NPRM*, we tentatively concluded that we should enhance the existing transparency rule for end users, edge providers, the Internet community, and the Commission to have the information they need to understand the services they receive and to monitor practices that could undermine the open Internet.[375] The NPRM sought comment on a variety of possible enhancements, including whether to require tailored disclosures for specific constituencies (end users, edge providers, the Internet community); ways to make the content and format of disclosures more accessible and understandable to end users; specific changes to disclosures for network practices that would benefit edge providers; whether there are more effective or more comprehensive ways to measure network performance; whether to require providers to disclose meaningful information regarding source, location, speed, packet loss, and duration of congestion; and whether and how any enhancements should apply to mobile broadband providers in a manner different from their application to fixed broadband providers.[376]

156. Based on the record compiled in response to those proposals, below we set forth targeted, incremental enhancements to the existing transparency rule. We first recap the existing transparency rule, which forms the baseline off of which we build today. Having established that baseline, we describe specific enhancements—including refinements and expansions in the required disclosures of commercial terms, performance characteristics, and network practices; adoption of a requirement that broadband providers notify end users directly if their individual use of a network will trigger a network practice, based on their demand prior to a period of congestion, that is likely to have a significant impact on the use of the service. We then address a request to exempt small providers from enhancements to the transparency rule, discuss the relationship of the enhancements to the existing transparency rule, and note the role that we anticipate further guidance from Commission staff will continue to play in applying the transparency rule in practice. Lastly, we adopt a voluntary safe harbor (but not a requirement) for a standalone disclosure format that broadband providers may use in meeting the existing requirement to disclose information that meets the needs of end users.

a. The Existing Transparency Rule

157. The D.C. Circuit in *Verizon* upheld the transparency rule, which remains in full force, applicable to both fixed and mobile providers.[377] In enhancing this rule, we build off of the solid

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Beales, Richard Craswell & Steven C. Salop, *Information Remedies for Consumer Protection*, 71 Am. Econ. Rev. 410 at 411 (Papers & Proceedings, May 1981); Alissa Cooper, How Regulation and Competition Influence Discrimination in Broadband Traffic Management: A Comparative Study of Net Neutrality in the United States and United Kingdom, at Section 2.4.3 (Sept. 2013), http://www.alissacooper.com/phd-thesis/ ("A policy of requiring ISPs to publicly disclose the details of their traffic management practices, whether combined with additional regulation or not, has enjoyed widespread support.") (Cooper Thesis); *see also* Letter from Kathleen Grillo, Senior Vice President, Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 12-269, 14-28, at 1 (filed Mar. 24, 2014) (arguing that "the Commission should rely primarily on consumer choice, competition, and *transparency* to guide Commission policy") (emphasis added).

[375] *2014 Open Internet NPRM*, 29 FCC Rcd at 5586, para. 67.

[376] *Id.* at 5586-92, paras. 68, 72, 76, 80, 83, 84-85.

[377] *See Verizon*, 740 F.3d at 659. In the *2014 Open Internet NPRM*, we concluded that "we have ample authority not only for our existing transparency rules, but also for the enhanced transparency rules we propose today, whether the (continued….)

foundation established by the *Open Internet Order*. In that Order, the Commission concluded that effective disclosure of broadband providers' network management practices, performance, and commercial terms of service promotes competition, innovation, investment, end-user choice, and broadband adoption.[378] As a result, the Commission adopted a transparency rule requiring both fixed and mobile providers to "publicly disclose accurate information regarding the network management practices, performance, and commercial terms" of their broadband Internet access service.[379] The rule specifies that such disclosures be "sufficient for consumers to make informed choices regarding the use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings."[380]

158. The *2010 Open Internet Order* went on to provide guidance on both the information to be disclosed and the method of disclosure.[381] Within each category of required disclosure (network management practices, performance characteristics, and commercial terms), the *Open Internet Order* described the type of information to be disclosed. For example, under performance characteristics, the Commission specified, among other things, disclosure of "expected and actual access speed and latency" as well as the "impact of specialized services."[382] All disclosures were required to be made "timely and prominently[,] in plain language accessible to current and prospective end users and edge providers, the Commission, and third parties who wish to monitor network management practices for potential violations of open Internet principles."[383]

159. In 2011 and 2014, Commission staff provided guidance on interpreting the transparency rule. For example, in addition to other points, the 2011 guidance issued by the Enforcement Bureau and Office of General Counsel (*2011 Advisory Guidance*) described the means by which fixed and mobile broadband providers should meet the requirement to disclose actual performance of the broadband Internet access services they offer and to disclose network management practices, performance, characteristics, and commercial terms "at the point of sale."[384] The *2011 Advisory Guidance* also clarified the statement in the *Open Internet Order* that effective disclosures "will likely include some or all of the" information listed in paragraphs 56 and 98, but also that the list was "not necessarily exhaustive, nor is it a safe harbor," and that "there may be additional information, not included [in paragraphs 56 and 98], that should be disclosed for a particular broadband service to comply with the rule in light of relevant circumstances."[385] Acknowledging the concern of some providers that "they could be liable for failing to disclose additional types of information that they may not be aware are subject to disclosure," the 2011

Commission ultimately relies on section 706, Title II, or another source of legal authority." *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5585, para. 65.

[378] *See 2010 Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56 (concluding that effective disclosures will include information concerning: (1) network practices, including, for example, congestion management and security measures; (2) performance characteristics, including a general description of system performance (such as speed and latency); and (3) commercial terms, including pricing, privacy policies, and redress options).

[379] *Id.* at 17937, para. 54; *see also* 47 C.F.R. § 8.3.

[380] 47 C.F.R. § 8.3.

[381] *See 2010 Open Internet Order*, 25 FCC Rcd at 17938-40, 17959, paras. 56-57, 98.

[382] *Id.* at 17939, para. 56.

[383] *Id.*

[384] *FCC Enforcement Bureau and Office of General Counsel Issue Advisory Guidance for Compliance with Open Internet Transparency Rule*, GN Docket No. 09-191, WC Docket No. 07-52, Public Notice, 26 FCC Rcd 9411 (2011) (*2011 Advisory Guidance*).

[385] *Id.*; *see also 2010 Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

Advisory Guidance stated that disclosure of the information described in those paragraphs "will suffice for compliance with the transparency rule at this time."[386]

160. In an advisory issued in July 2014 (*2014 Advisory Guidance*), the Enforcement Bureau explained that the transparency rule "prevents a broadband Internet access provider from making assertions about its service that contain errors, are inconsistent with the provider's disclosure statement, or are misleading or deceptive."[387] Accurate disclosures "ensure that consumers—as well as the Commission and the public as a whole—are informed about a broadband Internet access provider's network management practices, performance, and commercial terms."[388] As the *2014 Advisory Guidance* recognized, the transparency rule "can achieve its purpose of sufficiently informing consumers only if advertisements and other public statements that broadband Internet access providers make about their services are accurate and consistent with any official disclosures that providers post on their websites or make available in stores or over the phone."[389] Thus, "a provider making an inaccurate assertion about its service performance in an advertisement, where the description is most likely to be seen by consumers, could not defend itself against a Transparency Rule violation by pointing to an 'accurate' official disclosure in some other public place."[390] Allowing such defenses would undermine the core purpose of the transparency rule.

161. Today, we build off of this baseline: the transparency rule requirements established in 2010, and interpreted by the *2011* and *2014 Advisory Guidance*. We also take this opportunity to make two clarifications to the existing rule. First, all of the pieces of information described in paragraphs 56 and 98 of the *Open Internet Order* have been required as part of the current transparency rule, and we will continue to require the information as part of our enhanced rule. The only exception is the requirement to disclose "typical frequency of congestion," which we no longer require since it is superseded by more precise disclosures already required by the rule, such as actual performance.[391] Second, the requirement that *all* disclosures made by a broadband provider be accurate includes the need to maintain the accuracy of these disclosures. Thus, whenever there is a material change in a provider's disclosure of commercial terms, network practices, or performance characteristics, the provider has a duty to update the disclosure in a manner that is "timely and prominently disclosed in plain language accessible to current and prospective end users and edge providers, the Commission, and third parties who wish to monitor network management practices for potential violations of open Internet principles."[392] For these purposes, a "material" change is any change that a reasonable consumer or edge provider would consider important to their decisions on their choice of provider, service, or application.

b. Enhancing the Transparency Rule

162. We adopt the tentative conclusion in the *2014 Open Internet NPRM* to enhance the

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[386] *2011 Enforcement Advisory Guidance*, 26 FCC Rcd at 9416.

[387] *FCC Enforcement Advisory, Open Internet Transparency Rule: Broadband Providers Must Disclose Accurate Information to Protect Consumers*, Public Notice, 29 FCC Rcd 8606, 8607 (2014) (*2014 Advisory Guidance*).

[388] *Id.*

[389] *Id.*

[390] *Id.*

[391] *2010 Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56.

[392] *Id*. We decline, however, to adopt a specific timeframe concerning the updating of disclosures following a material change (e.g., 24 hours). *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5593, para. 88 ("In what timeframe should the Commission require providers to report . . . changes in their traffic management policies to the Commission?").

existing transparency rule in certain respects. We conclude that enhancing the existing transparency rule as described below will better enable end-user consumers to make informed choices about broadband services by providing them with timely information tailored more specifically to their needs, and will similarly provide edge providers with the information necessary to develop new content, applications, services, and devices that promote the virtuous cycle of investment and innovation.[393]

(i) Enhancements to Content of Required Disclosures

163. As noted above, the existing transparency rule requires specific disclosures with respect to network practices, performance characteristics, and commercial terms.[394] As we noted in the *2014 Open Internet NPRM*, the Commission has continued to receive numerous complaints from consumers suggesting that broadband providers are not providing information that end users and edge providers need to receive.[395] We noted that consumers continue to express concern that the speed of their service falls short of advertised speeds, that billed amounts are greater than advertised rates, and that consumers are unable to determine the source of slow or congested service.[396] In addition, we noted that end users are often surprised that broadband providers slow or terminate service based on "excessive use" or based on other practices, and that consumers report confusion regarding data thresholds or caps.[397] Further, the need for enhanced transparency is bolstered by the needs of certain user groups who rely on broadband as their primary avenue for communications, such as people with disabilities.[398] These enhancements will also serve edge providers. The record supports our conclusions that more specific and detailed disclosures are necessary to ensure that edge providers can "develop, market, and maintain Internet offerings."[399] Such disclosures will also help the wider Internet community monitor provider practices to ensure compliance with our Open Internet rules and providers' own policies.

164. *Commercial Terms*. The existing transparency rule defines the required disclosure of "commercial terms" to include pricing, privacy policies, and redress options. While we do not take additional action concerning the requirement to disclose privacy policies and redress options, the record demonstrates need for specific required disclosures about price and related terms. In particular, we specify the disclosures of commercial terms for prices, other fees, and data caps and allowances as follows:

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[393] *See, e.g.*, Organization for Economic Co-operation and Development, Enhancing Competition in Telecommunications: Protecting and Empowering Consumers, Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy at 4 (2008), http://www.oecd.org/dataoecd/25/2/40679279.pdf (stating that informed consumers "are necessary to stimulate firms to innovate, improve quality and compete in terms of price. In making well-informed choices between suppliers, consumers not only benefit from competition, but they initiate and sustain it."); Comcast Comments at 15-16 (noting that some of the transparency enhancements suggested in the NPRM could support the "virtuous circle"); EFF Comments at 26 (discussing the importance of information from broadband providers in order to develop new applications and protocols); iClick2Media Comments at 19 (noting that greater communication with end users would allow end users to become active in the virtuous circle); Koning Comments at 18 (noting that without transparency, forms of Internet encryption widely used today "would not be possible").

[394] *2010 Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56.

[395] *2014 Open Internet NPRM*, 29 FCC Rcd at 5586-87, para. 69.

[396] *Id.*

[397] *Id.*

[398] *See, e.g.*, TDI Comments at 2-4.

[399] *See, e.g.*, EFF Comments at 26; Microsoft Comments at 31; Telecommunications for the Deaf and Hard of Hearing Comments at 3; Vonage Comments at 28.

- **Price** – the full monthly service charge. Any promotional rates should be clearly noted as such, specify the duration of the promotional period, and note the full monthly service charge the consumer will incur after the expiration of the promotional period.[400]
- **Other Fees** – all additional one time and/or recurring fees and/or surcharges the consumer may incur either to initiate, maintain, or discontinue service, including the name, definition, and cost of each additional fee.[401] These may include modem rental fees, installation fees, service charges, and early termination fees, among others.
- **Data Caps and Allowances –** any data caps or allowances that are a part of the plan the consumer is purchasing, as well as the consequences of exceeding the cap or allowance (e.g., additional charges, loss of service for the remainder of the billing cycle).

To be clear, these disclosures may have been required in certain circumstances under the existing transparency rule in order to provide information "sufficient for consumers to make informed choices." Here, we now require that this information always be disclosed. In addition, per the current rule, disclosures of commercial terms shall also include the provider's privacy policies ("[f]or example, whether network management practices entail inspection of network traffic, and whether traffic information is stored, provided to third parties, or used by the carrier for non-network management purposes") and redress options ("practices for resolving end-user and edge provider complaints and questions").[402]

165. *Performance Characteristics*. The existing transparency rule requires broadband providers to disclose accurate information regarding network performance for each broadband service they offer.[403] This category includes a service description ("[a] general description of the service, including the service technology, expected and actual access speed and latency, and the suitability of the service for real-time applications") and the impact of specialized services ("[i]f applicable, what specialized services, if any, are offered to end users, and whether and how any specialized services may affect the last-mile capacity available for, and the performance, or broadband Internet access service").[404]

166. With respect to network performance, we adopt the following enhancements:

- The existing transparency rule requires disclosure of actual network performance.[405] In adopting that requirement, the Commission mentioned speed and latency as two key

[400] *See* Charter Comments at 23 (noting that Charter's website "explains when promotional rates will revert to standard rates").

[401] *See* IL and NY Comments at 11-12 ("[T]he transaction costs [to the consumer] of changing service in order to avoid pay-for-priority or individualized agreements can be substantial. They include early-termination fees, installation fees, finding an alternative broadband Internet service provider and comparing speeds . . . ."). The Commission agrees that the magnitude of these fees bears on consumer decision-making when choosing or switching providers. As a result, the provision of explicit information regarding these fees by providers both promotes competition and assists in consumer decision making.

[402] *2010 Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[403] *Id.*; *2011 Advisory Guidance*, 26 FCC Rcd 9411.

[404] *2010 Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[405] *See Id.* at 17939, para. 56; *2011 Advisory Guidance*, 26 FCC Rcd at 9414.

measures.[406] Today we include packet loss as a necessary part of the network performance disclosure.[407]

- We expect that disclosures to consumers of actual network performance data should be reasonably related to the performance the consumer would likely experience in the geographic area in which the consumer is purchasing service.[408]
- We also expect that network performance will be measured in terms of average performance over a reasonable period of time and during times of peak usage.[409]
- We clarify that, for mobile broadband providers, the obligation in the existing transparency rule to disclose network performance information for "each broadband service" refers to separate disclosures for services with each technology (e.g., 3G and 4G). Furthermore, with the exception of small providers, mobile broadband providers today can be expected to have access to reliable actual data on performance of their networks representative of the geographic area in which the consumer is purchasing service—through their own or third-party testing—that would be the source of the disclosure.[410] Commission staff also continue to refine the mobile MBA program, which

[406] *2010 Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[407] *See, e.g.*, AARP Comments at 49 (stating that information regarding packet loss could be useful to consumers if accessible); EFF Comments at 29 (calling for inclusion of packet loss in disclosures); Online Publishers Association Comments at 8-9 (supporting the inclusion of packet loss in disclosures); TechAmerica Comments at 5-6 (supporting the inclusion of packet loss); *see also* BITAG Congestion Report at 12 (discussing delay intolerant applications).

[408] *See, e.g.*, Cogent Remand PN Comments at 13 ("Without more localized data, consumers will not have meaningful information on which to base choices concerning local broadband service, and broadband providers will not be incentivized to offer higher quality serves in all areas."); *See* Letter from Dr. Jeremy Gillula, Electronic Frontier Foundation, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Oct. 30, 2014) ("We also suggested that if a national ISP has significantly different performance in different metropolitan or other geographical areas, then the ISP should be required to report its metrics separately for each of those areas."); *id.* at 3 ("[I]t would be useful if mobile broadband ISPs provided additional disclosures (particularly metrics like throughput and packet loss) broken down by geographical area . . . .").

[409] We recognize that parties have expressed concern about providing disclosures about network performance on a real-time basis. *See* Letter from Scott K. Bergmann, Vice Pres. Reg. Affairs, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Jan. 15, 2015). The enhancements to the transparency rule we adopt today do not include such a requirement. *See, e.g.*, WGAW Comments at 18 (calling for disclosure of actual speeds at peak times); *see also* FCC's Office of Engineering and Technology and Consumer & Governmental Affairs Bureau, 2014 Measuring Broadband America Fixed Broadband Report: A Report on Consumer Fixed Broadband Performance in the US at 5 (2014), http://data.fcc.gov/download/measuring-broadband-america/2014/2014-Fixed-Measuring-Broadband-America-Report.pdf (stating that download and upload speeds are measured by average throughput over a 5 second time window, and defining the peak usage period for fixed broadband as between 7:00 p.m. and 11:00 p.m. local time). Given that the performance of mobile broadband networks is subject to a greater array of factors than fixed networks, we note that disclosure of a range of speeds may be more appropriate for mobile broadband consumers.

[410] Per the *2011 Advisory Guidance*, those mobile broadband providers that "lack reasonable access" to reliable information on their network performance metrics may disclose a "Typical Speed Range (TSR)" to meet the requirement to disclose actual performance. *See 2011 Advisory Guidance*, 26 FCC Rcd at 9415-16. In any event, we expect that mobile broadband providers' disclosure of actual performance data will be based on accepted industry practices and principles of statistical validity.

could at the appropriate time be declared a safe harbor for mobile broadband providers.[411]

We decline to otherwise codify specific methodologies for measuring the "actual performance" required by the existing transparency rule. We find that, as in 2010, there is benefit in permitting measurement methodologies to evolve and improve over time, with further guidance from Bureaus and Offices—like in 2011—as to acceptable methodologies.[412] We delegate authority to our Chief Technologist to lead this effort.

167. In addition, the existing rule concerning performance characteristics requires disclosure of the "impact" of specialized services, including "what specialized services, if any, are offered to end users, and "whether and how any specialized services may affect the last-mile capacity available for, and the performance of, broadband Internet access service."[413] As discussed below, today we more properly refer to these services as "non-BIAS data services." Given that the Commission will closely scrutinize offerings of non-BIAS data services and their impact on competition, we clarify that in addition to the requirements of the existing rule concerning what was formerly referred to as "specialized services," disclosure of the impact of non-BIAS data services includes a description of whether the service relies on particular network practices and whether similar functionality is available to applications and services offered over broadband Internet access service.[414]

168. The *2014 Open Internet NPRM* tentatively concluded that we should require that broadband providers disclose meaningful information regarding the source, location, timing, speed, packet loss, and duration of network congestion.[415] As discussed above, we continue to require disclosure of actual network speed and latency (as in 2010), and also require disclosure of packet loss. We decline at this time to require disclosure of the source, location, timing, or duration of network congestion, noting

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[411] Participation in the Measuring Broadband America (MBA) program continues to be a safe harbor for fixed broadband providers in meeting the requirement to disclose actual network performance. The *2011 Advisory Guidance* further stated that fixed providers that choose not to participate in MBA may measure and disclose performance of their broadband offerings using the MBA's methodology, internal testing, consumer speed data, or other data, including reliable, relevant data from third-party sources. *See 2011 Advisory Guidance*, 26 FCC Rcd at 9415. Various software-based broadband performance tests are available as potential tools for end users and companies to estimate actual broadband performance. *See, e.g.*, FCC, Speed Test App, http://www.fcc.gov/measuring-broadband-america/mobile (last visited Feb. 24, 2015); Ookla, Speedtest.net http://www.speedtest.net (last visited Feb. 24, 2015); MLab, Internet Measurement Tools, http://www.measurementlab.net/tests (last visited Feb. 24, 2015); Assia, CloudCheck, http://forum.cloudcheck.net (last visited Feb. 24, 2015). *See also* Letter from Gerard J. Waldron, counsel to Adaptive Spectrum and Signal Alignment, Inc. (ASSIA), to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Jan. 28, 2015) (discussing a particular application, CloudCheck, which ASSIA reports "measures and monitors broadband speeds and throughout, and . . . can report to consumers and other interested parties information about the performance of consumers' internet connectivity"). As noted above, we anticipate that the measurement methodology used for the MBA project will continue to be refined, which in turn will enhance the effectiveness of network performance disclosures generally. *See, e.g.*, ACA Comments at 36 (stating that the MBA program is achieving its aims); CenturyLink Comments at 25-27 (noting the significant transparency through MBA participation); Frontier Comments at 7 (suggesting making greater use of the MBA program).

[412] We expect that acceptable methodologies will be grounded in commonly accepted principles of scientific research, good engineering practices, and transparency. *See* FCC's Office of Engineering and Technology and Consumer & Governmental Affairs Bureau, *Measuring Broadband America Policy on Openness and Transparency*, http://www.fcc.gov/measuring-broadband-america/openness-transparency-policy (last visited Feb. 21, 2015).

[413] *2010 Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

[414] *See infra* Section III.D.3.; *see also* BITAG Congestion Report at 43 (discussing transparency).

[415] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5591, para. 83.

that congestion may originate beyond the broadband provider's network and the limitations of a broadband provider's knowledge of some of these performance characteristics.[416] We also asked whether the Commission should expand its transparency efforts to include measurement of other aspects of service.[417] We decline at this time to require disclosure of packet corruption or jitter, noting that commenters expressed concerns regarding the difficulty of defining metrics for such performance characteristics.[418]

169. *Network Practices*. The existing transparency rule requires disclosure of network practices, including specific disclosures related to congestion management, application-specific behavior, device attachment rules, and security.[419] Today, in recognition of significant consumer concerns presented in the record, we further clarify that disclosure of network practices shall include practices that

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[416] Short-term congestion occurs whenever instantaneous demand exceeds capacity. *See* BITAG Congestion Report at 4-5. Since demand often consists of the aggregation of a large number of users' traffic, it is technologically difficult to determine the sources of each component of the aggregate traffic. *See, e.g.*, ACA Comments at 40; AT&T Comments at 88; Charter Comments at 27 (noting that ISPs can monitor only a portion of the transmission path); Letter from Steven F. Morris, Vice Pres. and Gen. Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Jan. 21 2015) ("As the Commission has acknowledged, the performance experienced by a consumer is affected by many factors beyond the control of an ISP."); Cox Comments at 20-21; WISPA Comments at 16 ("In addition, the source of congestion at a given time may not be clear to the broadband provider, especially if the congestion results from events occurring outside the local broadband network. As a result, broadband providers will simply default to general language listing all of the possible sources of congestion, which solves no purpose other than to make disclosure requirements confusing and meaningless.").

[417] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5588, para. 73.

[418] *See, e.g.*, AT&T Comments at 89 ("[R]equiring more technical disclosures would not yield meaningful benefits to edge providers or device manufacturers, because there is no single industry-accepted meaning or method of measurement for broadband metrics like corruption and jitter."). Furthermore, corrupted packets may be included in the packet loss performance characteristic.

[419] *2010 Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56 (elaborating upon each of these subcategories as follows: (1) congestion management ("If applicable, descriptions of congestion management practices; types of traffic subject to practices; purposes served by practices; practices' effects on end users' experience; criteria used in practices, such as indicators of congestion that trigger a practice, and the typical frequency of congestion; usage limits and the consequences of exceeding them; and references to engineering standards, where appropriate"); (2) application-specific behavior ("If applicable, whether and why the provider blocks or rate-controls specific protocols or protocol ports, modifies protocol fields in ways not prescribed by the protocol standard, or otherwise inhibits or favors certain applications or classes of applications"); (3) device attachment rules ("If applicable, any restrictions on the types of devices and any approval procedures for devices to connect to the network"); and (4) security ("If applicable, practices used to ensure end-user security or security of the network, including types of triggering conditions that cause a mechanism to be invoked (but excluding information that could reasonably be used to circumvent network security)"); *see id.* at 17959, para. 98 (specifying certain application-approval and device-attachment disclosures by mobile broadband providers, explaining that the transparency rule requires them: "to disclose their third-party device and application certification procedures, if any; to clearly explain their criteria for any restrictions on use of their network; and to expeditiously inform device and application providers of any decisions to deny access to the network or of a failure to approve their particular devices or applications"). Additionally, "mobile broadband providers should follow the guidance the Commission provided to licensees of the upper 700 MHz C Block spectrum regarding compliance with their disclosure obligations, particularly regarding disclosure to third-party application developers and device manufacturers of criteria and approval procedures (to the extent applicable). For example, these disclosures include, to the extent applicable, establishing a transparent and efficient approval process for third parties, as set forth in Rule 27.16(d)." *Id.* As discussed above, this information remains part of the transparency rule, with the exception of the requirement to disclose the "typical frequency of congestion."

are applied to traffic associated with a particular user or user group, including any application-agnostic degradation of service to a particular end user.[420] We also clarify that disclosures of user-based or application-based practices should include the purpose of the practice , which users or data plans may be affected, the triggers that activate the use of the practice, the types of traffic that are subject to the practice, and the practice's likely effects on end users' experiences.[421] While some of these disclosures may have been required in certain circumstances under the existing transparency rule, here we clarify that this information should always be disclosed. These disclosures with respect to network practices are necessary: for the public and the Commission to know about the existence of network practices that may be evaluated under the rules, for users to understand when and how practices may affect them, and for edge providers to develop Internet offerings.

170. The *2014 Open Internet NPRM* asked whether we should require disclosures that permit end users to identify application-specific usage or to distinguish which user or device contributed to which part of the total data usage.[422] We decline at this time to require such disclosures, noting that collection of application-specific usage by a broadband provider may require use of deep packet inspection practices that may pose privacy concerns for consumers.[423]

(ii) Enhancements to the Means of Disclosure

171. The existing transparency rule requires, at a minimum, the prominent display of disclosures on a publicly available website and disclosure of relevant information at the point of sale.[424] We enhance the rule to require a mechanism for directly notifying end users if their individual use of a

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[420] For example, a broadband Internet access service provider may define user groups based on the service plan to which users are subscribed, the volume of data that users send or receive over a specified time period of time or under specific network conditions, or the location of users. *See infra* Sections III.C.1.b; III.D.4. *See also* BITAG Congestion Report at 18 (discussing user-based congestion management); Microsoft Comments at 31 (discussing the need to disclose congestion thresholds that trigger traffic shaping and the consequences of traffic shaping).

[421] *See infra* Section III.D.4. *See also* BITAG Congestion Report at 43 (discussing what should be required in disclosures of congestion management policies); Broadband Internet Technical Advisory Group, Port Blocking at 22-23 (2013) http://www.bitag.org/documents/Port-Blocking.pdf (discussing recommendations for disclosure of ISP port blocking policies); Microsoft Comments at 31 (recommending disclosure of "types of edge services or protocols (if any) the broadband access provider filters, prioritizes, or otherwise treats in a non-neutral manner, relative to other types of traffic"); EFF Comments at 29 (requesting "clear warnings about any fast lanes, premium services, blocking or filtering that the user will not have a simple and practical way to avoid"); Kentucky Public Library Association Comments at 1 ("Consumers should be aware of the ISP's guidelines on what kind of content qualifies as spam and what level of congestion would necessitate limiting certain customer's bandwidth."); Online Publishers Association Comments at 9 (noting importance of information "about any network management practices that may impede [consumers'] ability to access to content or services); Roku Comments at iii (noting that any practices or policies that exempt traffic from data caps should be specifically disclosed); TechAmerica Comments at 5 (supporting the disclosure of any blocking); Vonage Comments at 27-28 (requesting disclosure of all network management practice that degrade service capacity); WGAW Comments at 18 (asking for details on congestion management policies).

[422] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5588, para. 73.

[423] *See, e.g.*, NCTA Comments at 50 ("Such a requirement likely would necessitate significant use of deep packet inspection in an attempt to determine the user or device responsible for originating or receiving particular Internet traffic."); EFF Comments at 32 (expressing privacy concerns about disclosure of application-specific information).

[424] *2010 Open Internet Order*, 25 FCC Rcd at 17939-40, para. 57. Broadband providers must actually disclose information required for consumers to make an "informed choice" regarding the purchase or use of broadband services at the point of sale. It is not sufficient for broadband providers simply to provide a link to their disclosures. *See supra* Section III.C.3.a.

network will trigger a network practice, based on their demand prior to a period of congestion, that is likely to have a significant impact on the end user's use of the service. The purpose of such notification is to provide the affected end users with sufficient information and time to consider adjusting their usage to avoid application of the practice.

(iii) Small Businesses

172. The record reflects the concerns of some commenters that enhanced transparency requirements will be particularly burdensome for smaller providers.[425] ACA, for example, suggests that smaller providers be exempted from the provision of such disclosures.[426] ACA states that its member companies are complying with the current transparency requirements, which "strike the right balance between edge provider and consumer needs for pertinent information and the need to provide ISPs with some flexibility in how they disclose pertinent information."[427] We believe that the transparency enhancements adopted today are modest in nature. For example, we have declined to require certain disclosures proposed in the *2014 Open Internet NPRM* such as the source of congestion, packet corruption, and jitter in recognition of commenter concerns with the benefits and difficulty of making these particular disclosures. We also do not require "real-time" disclosures. These proposed disclosures appear to form the bulk of ACA's concerns.[428] Nevertheless, we take seriously the concerns that ACA raises and those of smaller broadband providers generally.

173. Out of an abundance of caution, we grant a temporary exemption for these providers, with the potential for that exemption to become permanent. It is unclear, however, how best to delineate the boundaries of this exception. Clearly, it should include those providers likely to be most disproportionately affected by new disclosure requirements. ACA "acknowledge[s] that Congress and the Commission have defined 'small' in various ways."[429] One metric to which ACA points is the approach that the Commission used in its *2013 Rural Call Completion Order*, which excepted providers with 100,000 or fewer subscriber lines, aggregated across all affiliates, from certain recordkeeping, retention,

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[425] *See, e.g.*, ACA Comments at 32-39; Competitive Carrier Association (CCA) Comments at 8-9 ("Expanding the current disclosure requirements would also be particularly burdensome on smaller carriers); WISPA Comments at 15-16; WTA Comments at 8 ("WTA is very concerned about the increased costs and uncertain benefits of the proposed enhanced transparency requirements for smaller carriers and their customers."); Letter from Erin P. Fitzgerald, Assistant Regulatory Counsel, Rural Wireless Association, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 at 1 (filed Nov. 14, 2014) (RWA Nov. 14, 2014 *Ex Parte* Letter) ("While RWA members have developed procedures to comply with the Commission's 2010 transparency and disclosure rules,[footnote omitted] engaging in a similar endeavor to comply with new and/or more stringent rules would be costly and further strain rural carriers' limited resources."); Letter from Stephen E. Coran, Counsel to the Wireless Internet Service Providers Association, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 at 8 (filed Feb. 3, 2015) ("To avoid the significant effects that would result from the Commission's proposed rules, the Commission should exempt small businesses from any new transparency and reporting obligations.").

[426] *See* ACA Comments at 39-40 ("any enhanced disclosure rule regarding network congestion . . . should exclude 'small providers'").

[427] Letter from Barbara Esbin, Counsel for ACA, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 6 (filed Feb. 2, 2015) (ACA Feb. 2, 2015 *Ex Parte* Letter).

[428] *Id.* at 5-6 ("ACA also discussed the lack of record support for the imposition of any enhanced transparency requirements for small ISPs, particularly proposals to maintain a separate set of Open Internet disclosures tailored to the needs of edge providers and to disclose, on a real-time basis, information about network congestion and the lack of demonstrable benefits that would accrue from such reporting"). *See also id.* at 6 (reporting on an *ex parte* meeting in which a representative of an ACA member "confirmed that realtime network congestion disclosures would be highly burdensome for a small ISP").

[429] *Id*. at 5.

and reporting rules.[430] We adopt this definition for purposes of the temporary exemption that we adopt today. Accordingly, we hereby adopt a temporary exemption from the enhancements to the transparency rule for those providers of broadband Internet access service (whether fixed or mobile) with 100,000 or fewer broadband subscribers as per their most recent Form 477, aggregated over all the providers' affiliates.[431]

174. Yet we believe that both the appropriateness of the exemption and the threshold require further deliberation. Accordingly, the exemption we adopt is only temporary. We delegate to the Consumer & Governmental Affairs Bureau (CGB) the authority to determine whether to maintain the exemption and, if so, the appropriate threshold for it. We direct CGB to seek comment on the question and to adopt an Order announcing whether it is maintaining an exemption and at what level by no later than December 15, 2015. Until such time, notwithstanding any approval received by the Office of Management & Budget for the enhancements adopted today, such enhancements will not apply to providers of broadband Internet access service with 100,000 or fewer subscribers.

175. To be clear, all providers of broadband Internet access service, including small providers, remain subject to the existing transparency rule adopted in 2010. The temporary exemption adopted today, and any permanent exemption adopted by CGB, applies only to the enhanced disclosures described above. As ACA states in its request for an exemption for small providers, "[i]rrespective of which definition of small that is chosen by the Commission, exempt ISPs would still be required to comply with the transparency requirements contained in Section 8.3 of the Commission's rules today."[432]

(iv) Safe Harbor for Form of Disclosure to Consumers

176. The existing transparency rule requires disclosures sufficient *both* to enable "consumers to make informed choices regarding use of [broadband] services" *and* "content, application, service, and device providers to develop, market, and maintain Internet offerings."[433] As in 2010, a central purpose of the transparency rule remains to provide information useful to both constituencies. As we noted in the *2014 Open Internet NPRM*, we are concerned that disclosures are not consistently provided in a manner that adequately satisfies the divergent informational needs of all affected parties. For example, disclosures at times are ill-defined; do not consistently measure service offerings, making comparisons difficult; or are not easily found on provider websites.[434] In the *2014 Open Internet NPRM*, we therefore proposed requiring separate disclosure statements to meet both the basic informational needs of consumers and the more technical needs of edge providers.[435]

177. The record reflects concerns, however, as to a requirement to offer tailored disclosures. For example, ACA states that disclosures tailored to edge providers "would require small ISPs, who manage their own networks and may only have a handful of network operators, engineers, and head end

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[430] *See Rural Call Completion*, WC Docket No. 13-39, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 16154 (2013) (*Rural Call Completion Order*). We also note that one of the entities requesting relief from enhanced transparency rules – RWA – is comprised of member companies serving fewer than 100,000 mobile subscribers. RWA Nov. 14, 2014 *Ex Parte* Letter at 1.

[431] *Cf. Rural Call Completion Order*, 28 FCC Rcd at 16164, para. 19.

[432] RWA Nov. 14, 2014 *Ex Parte* Letter at 6.

[433] *2010 Open Internet Order*, 25 FCC Rcd at 17937, para. 54.

[434] *See, e.g.*, Mayor de Blasio et al. Comments at 1 ("Currently, the lack of clear, accurate information results in confusion with respect to key service features like download and upload speeds, pricing and usage restrictions.").

[435] *2014 Open Internet NPRM,* 29 FCC Rcd at 5586, para. 68.

staff to make onerous expenditures of both personnel hours and financial resources."[436] Bright House "question[s] the feasibility of creating disclosures tailored to the varied and potentially unique needs of the hundreds of such providers, particularly with no reciprocal obligation."[437] Similarly, Tech Freedom and the International Center for Law and Economics assert that "requiring ISPs to tailor their disclosures to the various parties the ISPs deal with (i.e., consumers, edge providers, the Internet community, and the FCC) greatly increases the burden of complying with these disclosures, especially as such disclosures must be periodically updated to reflect changes to ISPs' network management practices."[438] In light of these concerns, we decline to require separate disclosures at this time.

178. In declining to mandate separate disclosures, however, we do not intend to diminish the existing requirement for disclosure of information sufficient for both end users *and* edge providers. The Commission has not established that a single disclosure would always satisfy the rule; rather, it merely stated broadband providers "may be able" to satisfy the transparency rule through a single disclosure. We are especially concerned that in some cases a single disclosure statement may be too detailed and technical to meet the needs of consumers, rather than a separate consumer-focused disclosure. As noted in the *2014 Open Internet NPRM*, both academic research and the Commission's experience with consumer issues have demonstrated that the manner in which providers display information to consumers can have as much impact on consumer decisions as the information itself.[439] A stand-alone format has proven effective in conveying useful information in other contexts.[440] We also note that the OIAC and OTI have proposed the use of a label to disclose the most important information to users of broadband service.[441] In addition, the United Kingdom's largest Internet service providers agreed to produce a comparable table of traffic management information called a Key Facts Indicator.[442]

179. Therefore, we are establishing a voluntary safe harbor for the format and nature of the required disclosure to consumers. To take advantage of the safe harbor, a broadband provider must provide a consumer-focused, standalone disclosure. We decline, however, to mandate the exact format for such disclosures at this time.[443] Rather, we seek the advice of our Consumer Advisory Committee, which is composed of both industry and consumer interests, including those representing people with disabilities.[444] We find that the Committee's experience with consumer disclosure issues[445] makes it an

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[436] Letter from Barbara S. Esbin, Counsel for American Cable Association to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 4 (filed Jan. 28, 2015).

[437] Bright House Comments at 14.

[438] Tech Freedom Comments at 12.

[439] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5587-88, para. 72.

[440] *See id*. at 5588 n.171.

[441] *See* Open Internet Advisory Committee, Open Internet Label Study (Aug. 20, 2013), at http://transition.fcc.gov/cgb/oiac/Transparency-Label-Study.pdf (OIAC Label Study); *see also* New America Foundation Broadband Truth-in-Labeling proposal: http://newamerica.net/sites/newamerica.net/files/policydocs/NAF_OTI_Broadband_Truth_in_Labeling-09-2009.pdf.

[442] *See* Ofcom, *Improving traffic management transparency: Ofcom sets out steps for ISPs to take* (Nov. 2011), http://media.ofcom.org.uk/news/2011/improving-traffic-management-transparency/.

[443] We note that although we have sought comment on what format would be most effective, the record is lacking on specific details as to how such a disclosure should be formatted.

[444] The Committee's purpose is to make recommendations to the Commission regarding consumer issues within Commission's jurisdiction and to facilitate the participation of consumers (including people with disabilities and

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ideal body to recommend a disclosure format that should be clear and easy to read—similar to a nutrition label—to allow consumers to easily compare the services of different providers. We believe the CAC is uniquely able to recommend a disclosure format that both anticipates and addresses provider compliance burdens while ensuring the utility of the disclosures for consumers.[446]

180. We direct the CAC to formulate and submit to the Commission a proposed disclosure format, based on input from a broad range of stakeholders, within six months of the time that its new membership is reconstituted, but, in any event, no later than October 31, 2015. The disclosure format must be accessible to persons with disabilities. We expect that the CAC will consider whether to propose the same or different formats for fixed and mobile broadband providers. In addition, we expect that the CAC will consider whether and how a standard format for mobile broadband providers will allow providers to continue to differentiate their services competitively, as well as how mobile broadband providers can effectively disclose commercial terms to consumers regarding myriad plans in a manner that is not administratively burdensome. The Commission delegates authority to the Wireline Competition Bureau, Wireless Telecommunications Bureau, and Consumer & Governmental Affairs Bureau to issue a Public Notice announcing whether the proposed format or formats meet its expectations for the safe harbor for making consumer-facing disclosures. If the format or formats do not meet such expectations, the Bureaus may ask the CAC to consider changes and submit a revised proposal for the Bureaus' review within 90 days of the Bureaus' request.

181. Broadband providers that voluntarily adopt this format will be presumed to be in compliance with the requirement to make transparency disclosures in a format that meets the needs of consumers. Providers that choose instead to maintain their own format—for example, a unitary disclosure intended both for consumers and edge providers—will bear the burden, if challenged, of explaining how a single disclosure statement meets the needs of both consumers and edge providers. To be clear, use of the consumer disclosure format is a safe harbor with respect to the format of the required disclosure to consumers. A broadband provider meeting the safe harbor could still be found to be in violation of the rule, for example, if the content of that disclosure (e.g., prices) is misleading or inaccurate, or the provider makes misleading or inaccurate statements in another context, such as advertisements or other statements to consumers. Moreover, broadband providers using the safe harbor should continue to provide the more detailed disclosure statement for the benefit of edge providers.

c. Enforcement and Relationship to the Existing Transparency Rule

182. Despite these enhancements to the existing transparency rule, we clarify that we are being specific in order to provide additional guidance. The transparency rule has always required broadband providers to disclose information "sufficient for consumers to make informed choices"[447] and that test could, in particular circumstances, include the enhancements that we expressly adopt today. We also

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underserved populations, such as Native Americans and persons living in rural areas) in proceedings before the Commission.

[445] For example, the Committee has studied the value of standardized disclosures and their contents. *See, e.g.*, FCC Consumer Advisory Committee, Recommendations Regarding Pre-Sale Consumer Disclosures (Aug. 4, 2010), at https://apps.fcc.gov/edocs_public/attachmatch/DOC-300826A1.pdf.

[446] *See, e.g.*, NCTA Comments at 51 ("If the Commission decides to pursue standardized disclosures, NCTA would welcome the opportunity to participate in the development of a voluntary program.").

[447] *See* 47 C.F.R. § 8.3. Even where a particular category of information discussed above was not specified in the *2010 Open Internet Order* that does not mean that disclosure of that information has not consistently been required under the transparency rule. If such information is necessary for a consumer to make an "informed choice" regarding the purchase or use of broadband service, disclosure of that information is a fundamental requirement of the transparency rule.

reiterate that under both the existing transparency rule and the enhancements adopted in this Order, all disclosures that broadband providers make about their network practices, performance, and commercial terms of broadband services must be accurate and not misleading.[448]

183. In the *2014 Open Internet NPRM* we also requested comment on how the Commission could best enforce the transparency rule.[449] In particular, we noted that a key objective of the transparency rule is to enable the Commission to collect information necessary to access, report, and enforce the open Internet rules.[450] For example, we sought comment on whether to require broadband providers to certify that they are in compliance with the required disclosures and/or submit reports containing descriptions of current disclosure practices, particularly if the existing flexible approach is amended to require more specific disclosures.[451] Some commenters caution against measures that are unnecessary, susceptible to abuse, or burdensome.[452] Others express support for stronger or more efficient enforcement mechanisms.[453] At this time we decline to require certification by broadband providers. Should evidence be provided, however, that certification is necessary, we will revisit this issue at a later date.

184. We also remind providers that if their disclosure statements fail to meet the requirements established in 2010 and enhanced today, they may be subject to investigation and forfeiture. The Enforcement Bureau will closely scrutinize failure by providers to meet their obligations in fulfilling the transparency rule.

d. Role of Further Advisory Guidance

185. The *2011* and *2014 Advisory Guidance* documents illustrate the role of further guidance from Commission staff in interpreting and applying the general requirements of the transparency rule. We anticipate that as technology, the marketplace, and the needs of consumers, edge providers, and other stakeholders evolve, further such guidance may be appropriate concerning the transparency rule, including with respect to the enhancements adopted today. The most immediate example concerns ongoing improvements and evolutions in the methodologies for measuring broadband providers' actual performance, as discussed in further detail above. We also point out that broadband providers are able to seek advisory opinions from the Enforcement Bureau concerning any of the open Internet regulations, including the transparency rule.[454]

D. Scope of the Rules

186. The open Internet rules we adopt today apply to fixed and mobile broadband Internet access service. We make clear, however, that while the definition of broadband Internet access service encompasses arrangements for the exchange of Internet traffic, the open Internet rules we adopt today do

[448] *See 2014 Advisory Guidance*, 29 FCC Rcd at 8607.

[449] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5592-93, para. 87.

[450] *Id.*

[451] *Id.*

[452] *See, e.g.*, ACA Comments at v ("The Commission should, rather than adopt enhancements, continue to rely upon its complaints and enforcement procedures to address any material concerns about individual providers' disclosures that may arise."); Charter Comments at 34-35 (arguing that the proposed enhanced enforcement mechanisms are unnecessary and susceptible to abuse).

[453] *See, e.g.*, EFF Comments at 26-27; Microsoft Comments at 32-33.

[454] *See infra* Section III.E.2.a(i).

not apply to that portion of the broadband Internet access service.[455]

1. Broadband Internet Access Service

187. As discussed below, we continue to define "broadband Internet access service" (BIAS) as:

> *A mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence, or that is used to evade the protections set forth in this Part.*[456]

188. "Broadband Internet access service" continues to include services provided over any technology platform, including but not limited to wire, terrestrial wireless (including fixed and mobile wireless services using licensed or unlicensed spectrum), and satellite.[457] "Broadband Internet access service" encompasses all providers of broadband Internet access service, as we delineate them here, regardless of whether they lease or own the facilities used to provide the service.[458] "Fixed" broadband Internet access service refers to a broadband Internet access service that serves end users primarily at fixed endpoints using stationary equipment, such as the modem that connects an end user's home router, computer, or other Internet access device to the network.[459] The term encompasses the delivery of fixed

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[455] *See infra* Section III.D.4.

[456] 47 C.F.R. § 8.11(a); *2010 Open Internet Order*, 25 FCC Rcd at 17932, para. 44; *id.* at 17935, para. 51 (finding that the market and regulatory landscape for dial-up Internet access service differed from broadband Internet access service); *2014 Open Internet NPRM*, 29 FCC Rcd at 5581, para. 54. The *Verizon* decision upheld the Commission's regulation of broadband Internet access service pursuant to section 706 and the definition of "broadband Internet access service" has remained part of the Commission's regulations since adopted in 2010.

[457] *2010 Open Internet Order*, 25 FCC Rcd at 17932, para. 44.

[458] The Commission has consistently determined that resellers of telecommunications services are telecommunications carriers, even if they do not own any facilities. *See, e.g.*, *Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290, 7293-94, 7312, paras. 10, 65 (2006), *vacated in part on other grounds sub nom. Qwest Servs. Corp. v. FCC*, 509 F.3d 531 (D.C. Cir. 2007); *NOS Communications, Inc., Affinity Network Inc. and NOSVA Limited Partnership*, EB Docket No. 03-96, Order to Show Cause and Notice of Opportunity for Hearing, 18 FCC Rcd 6952, 6953-54, para. 3 (2003); *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities*, Docket No. 20097, Report and Order, 60 FCC 2d 261, 265 para. 8 (1976) ("[A]n entity engaged in the resale of communications service is a common carrier, and is fully subject to the provisions of Title II."), *aff'd sub nom. AT&T v. FCC*, 572 F.2d 17 (2d Cir. 1978). Further, as the Supreme Court observed in *Brand X*, "the relevant definitions do not distinguish facilities-based and non-facilities-based carriers." *Brand X*, 545 U.S. at 997. We note that the rules apply not only to facilities-based providers of broadband service but also to resellers of that service. In applying these obligations to resellers, we recognize, as the Commission has in other contexts, that consumers will expect the protections and benefits afforded by providers' compliance with the rules, regardless of whether the consumer purchase service from a facilities-based provider or a reseller. *See, e.g.*, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems et al.*, CC Docket No. 94-102, IB Docket No. 99-67, Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 25340, 25380, para. 96 (2003). We note that a reseller's obligation under the rules is independent from the obligation of the facilities-based provider that supplies the underlying service to the reseller, though the extent of compliance by the underlying facilities-based provider will be a factor in assessing compliance by the reseller.

[459] *2010 Open Internet Order*, 25 FCC Rcd at 17934, para. 49 & n.153.

broadband over any medium, including various forms of wired broadband services (e.g., cable, DSL, fiber), fixed wireless broadband services (including fixed services using unlicensed spectrum), and fixed satellite broadband services. "Mobile" broadband Internet access service refers to a broadband Internet access service that serves end users primarily using mobile stations.[460] It also includes services that use smartphones or mobile-network-enabled tablets as the primary endpoints for connection to the Internet,[461] as well as mobile satellite broadband services.[462]

189. We continue to define "mass market" as "a service marketed and sold on a standardized basis to residential customers, small businesses, and other end-user customers such as schools and libraries."[463] To be clear, "mass market" includes broadband Internet access services purchased with support of the E-rate and Rural Healthcare programs, as well as any broadband Internet access service offered using networks supported by the Connect America Fund (CAF).[464] To the extent that institutions of higher learning purchase mass market services, those institutions would be included within the scope of the schools and libraries portion of our definition.[465] The term "mass market" does not include enterprise service offerings, which are typically offered to larger organizations through customized or individually-negotiated arrangements,[466] or special access services.[467]

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[460] *See* 47 U.S.C. § 153(34) ("The term 'mobile station' means a radio-communication station capable of being moved and which ordinarily does move."); *Open Internet Order*, 25 FCC Rcd at 17934, para. 49.

[461] We note that "public safety services," as defined in section 337 of the Act, are excluded from the definition of mobile broadband Internet access service. *See* 47 U.S.C. § 337(f)(1).

[462] We provide these definitions of "fixed" and "mobile" for illustrative purposes. In contrast to the Commission's *2010 Open Internet Order*, here we are applying the same regulations to both fixed and mobile broadband Internet access services.

[463] *2010 Open Internet Order*, 25 FCC Rcd at 17932, para. 45.

[464] In the *2010 Open Internet Order*, the Commission found that "mass market" included broadband Internet access services purchased with support of the E-rate program. *See 2010 Open Internet Order*, 25 FCC Rcd at 17932, para. 45. Since that time, the Commission has extended universal service support for broadband services through the Lifeline and Rural Health Care programs. *See Lifeline and Link Up Reform and Modernization; Lifeline and Link Up; Federal-State Joint Board on Universal Service; Advancing Broadband Availability Through Digital Literacy Training*, WC Docket Nos. 11-42, 03-109, 12-23, CC Docket No. 96-45, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, 6795, para. 323 (2012) (adopting "a Low-Income Broadband Pilot Program . . . that will focus on testing the necessary amount of subsidies for broadband and the length of support"); *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, 27 FCC Rcd 16678 (2012). Thus, for the same reasons the Commission defined mass market services to include BIAS purchased with the support of the E-rate program in 2010, we now find that mass market also includes BIAS purchased with the support of Lifeline and Rural Health Care programs.

[465] *See* Higher Education and Libraries Comments at 11 (noting that institutions of higher education are not "residential customers" or "small businesses" and uncertainty about whether institutions of higher education (and their libraries) are included in the term "schools" because the term is sometimes interpreted as applying only to K-12 schools).

[466] *See 2010 Open Internet Order*, 25 FCC Rcd at 17932, para. 45; *AT&T/BellSouth Merger Order*, 22 FCC Rcd at 5709-10, para. 85 ("[E]nterprise customers tend to be sophisticated and knowledgeable (often with the assistance of consultants), . . . contracts are typically the result of RFPs and are individually-negotiated (and frequently subject to non-disclosure clauses), . . . contracts are generally for customized service packages, and . . . the contracts usually remain in effect for a number of years.").

[467] The Commission has a separate, ongoing proceeding examining special access. *See Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Report and

(continued….)

190. We adopt our tentative conclusion in the *2014 Open Internet NPRM* that broadband Internet access service does not include virtual private network (VPN) services, content delivery networks (CDNs), hosting or data storage services, or Internet backbone services (to the extent those services are separate from broadband Internet access service).[468] The Commission has historically distinguished these services from "mass market" services and, as explained in the *2014 Open Internet NPRM*, they "do not provide the capability to receive data from all or substantially all Internet endpoints."[469] We do not disturb that finding here. Likewise, when a user employs, for example, a wireless router or a Wi-Fi hotspot to create a personal Wi-Fi network that is not intentionally offered for the benefit of others, he or she is not providing a broadband Internet access service under our definition.[470]

191. We again decline to apply the open Internet rules to premises operators —such as coffee shops, bookstores, airlines, private end-user networks (e.g. libraries and universities), and other businesses that acquire broadband Internet access service from a broadband provider to enable patrons to access the Internet from their respective establishments—to the extent they may be offering broadband Internet access service as we define it today.[471] We find, as we did in 2010, that a premises operator that purchases BIAS is an end user and that these services "are typically offered by the premise operator as an ancillary benefit to patrons."[472] Further, applying the open Internet rules to the provision of broadband service by premises operators would have a dampening effect on these entities' ability and incentive to offer these services. As such, we do not apply the open Internet rules adopted today to premises

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Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318 (2012) (*Special Access Data Collection Order* or *Special Access Data Collection NPRM*) (initiating special access data collection and seeking comment on a proposal to use the data to evaluate competition in the special access services market); *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Report and Order, 27 FCC Rcd 10557 (2012) (*Pricing Flexibility Suspension Order*) (suspending, on an interim basis, the Commission's rules allowing the grant of pricing flexibility for special access services in areas subject to price cap regulation and, to identify a replacement framework, detailing a plan to collect data and information for a robust market analysis to gauge actual and potential competition for special access services); *Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 1994 (2005) (*Special Access NPRM*) (initiating a broad examination of the regulatory framework to apply to price cap local exchange carrier's interstate special access services); *see also Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Order on Reconsideration, 29 FCC Rcd 10899 (Wireline Comp. Bur. 2014) (finalizing the special access data collection pursuant to delegated authority).

[468] *2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47; *2014 Open Internet NPRM*, 29 FCC Rcd at 5581, para. 58; *see also, e.g.*, Cox Comments at 8, 14; Nokia Comments at 11.

[469] *2014 Open Internet NPRM*, 29 FCC Rcd 5581-82, para. 58; *2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47 ("These services typically are not mass market services and/or do not provide the capability to transmit data to and receive data from all or substantially all Internet endpoints."); *see also* Verizon Comments at 77-78.

[470] *2010 Open Internet Order*, 25 FCC Rcd at 17936, para. 52, n.164 ("We also do not include within the rules free access to individuals' wireless networks, even if those networks are intentionally made available to others.").

[471] *See id*. at 17935, para. 52. While we decline to apply open Internet rules to premises operators to the extent they may offer broadband Internet access service, that decision does not affect other obligations that may apply to premises operators under the Act. *See, e .g.*, 47 U.S.C. § 333; *Warning: Wi-Fi Blocking is Prohibited*, Public Notice, DA 15-113 (Enforcement Bur. Jan. 27, 2015); *Marriott Int'l, Inc.; Marriott Hotel Servs, Inc.*, EB-IHD-13-00011303, Order and Consent Decree, 29 FCC Rcd 11760 (Enforcement Bur. 2014).

[472] *2010 Open Internet Order*, 25 FCC Rcd at 17935-36, para. 52, n.163.

operators.[473] The record evinces no significant disagreement with this analysis.[474]

192. Our definition of broadband Internet access service includes services "by wire or radio," which encompasses mobile broadband service. Thus, our definition of broadband Internet access service also extends to the same services provided by mobile providers. As discussed above, the record demonstrates the pressing need to apply open Internet rules to fixed and mobile broadband services alike, and changes in the mobile marketplace no longer counsel in favor of treating mobile differently under the rules.[475] Thus, we apply the open Internet rules adopted today to both fixed and mobile networks.[476]

193. As we discuss more fully below, broadband Internet access service encompasses the exchange of Internet traffic by an edge provider or an intermediary with the broadband provider's network.[477] Below, we find that broadband Internet access service is a telecommunications service, subject to sections 201, 202, and 208 (along with key enforcement provisions).[478] As a result, the Commission will be available to hear disputes regarding arrangements for the exchange of traffic with a broadband Internet access provider raised under sections 201 and 202 on a case-by-case basis: an appropriate vehicle for enforcement where disputes are primarily over commercial terms and that involve some very large corporations, including companies like transit providers and CDNs, that act on behalf of smaller edge providers. However, for reasons discussed more fully below,[479] we exclude this portion of broadband Internet access service—interconnection with a broadband Internet access service provider's network—from application of our open Internet rules. We note that this exclusion also extends to interconnection with CDNs.[480]

2. Internet Traffic Exchange

194. In the *2010 Open Internet Order*, the Commission applied its open Internet rules "only as far as the limits of a broadband provider's control over the transmission of data to or from its broadband customers," and excluded the exchange of traffic between networks from the scope of the rules.[481] In the

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[473] We reiterate the guidance in the *2010 Open Internet Order* that although not bound by our rules, we encourage premises operators to disclose relevant restrictions on broadband service they make available to their patrons. *See id.*

[474] CDT Comments at 26 n.61; Higher Education and Libraries Reply at 14-15. We note, however, that this exception does not affect other obligations that a premise operator may have independent of our open Internet rules. *See* TDI Comments at 14-15 (arguing that the enterprise or premise operator exception should not apply to blocking or prioritization undertaken in violation of disability law).

[475] *See supra* Section III.B.3.

[476] Although we adopt the same rules for both fixed and mobile services, we recognize that with respect to the reasonable network management exception, the rule may apply differently to fixed and mobile broadband providers. *See infra* Section III.D.4.

[477] *See infra* Section III.D.2.

[478] *See infra* Sections IV-V. We note that broadband Internet access services are also subject to sections 222, 224, 225, 254, and 255.

[479] *See infra* paras. 202-206.

[480] Letter from Scott Blake Harris, Counsel to Akamai Technologies, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Feb. 9, 2015) ("Akamai agrees with [the tentative conclusion not to apply the open Internet rules to CDNs] and submits that it should be adopted in the final order.").

[481] *2010 Open Internet Order*, 25 FCC Rcd at 17993, para. 47 n.150, 17944, para. 67 n.209; *see also id.* at para. 47 (excluding content delivery network services and Internet backbone services (if those services are separate from broadband Internet access) from the definition of "broadband Internet access service").

2014 Open Internet NPRM, the Commission tentatively concluded that it should maintain this approach, but explicitly sought comment on suggestions that the Commission should expand the scope of the open Internet rules to cover issues related to Internet traffic exchange.[482]

195. As discussed below, we classify fixed and mobile broadband Internet access service as telecommunications services.[483] The definition for broadband Internet access service includes the exchange of Internet traffic by an edge provider or an intermediary with the broadband provider's network. We note that anticompetitive and discriminatory practices in this portion of broadband Internet access service can have a deleterious effect on the open Internet,[484] and therefore retain targeted authority to protect against such practices through sections 201, 202, and 208 of the Act (and related enforcement provisions), but will forbear from a majority of the other provisions of the Act.[485] Thus, we conclude that, at this time, application of the no-unreasonable interference/disadvantage standard and the prohibitions on blocking, throttling, and paid prioritization to the Internet traffic exchange arrangements is not warranted.

196. *Trends in Internet Traffic Exchange*. Internet traffic exchange is typically based on commercial negotiations.[486] Changes in consumer behavior, traffic volume, and traffic composition have resulted in new business models for interconnection. Since broadband Internet access service providers cannot, on their own, connect to every end point on the Internet in order to provide full Internet access to their customers, they historically paid third-party backbone service providers for transit. Backbone service providers interconnected upstream until traffic reached Tier 1 backbone service providers, which peered with each other and thereby provided their customer networks with access to the full Internet.[487] In this hierarchical arrangement of networks, broadband Internet access providers negotiated with backbone service providers; broadband Internet access providers generally did not negotiate with edge providers to gain access to content.[488] However, in recent years, new business models of Internet traffic exchange have emerged, premised on changes in traffic flows and in broadband Internet access provider

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[482] *2014 Open Internet NPRM*, 29 FCC Rcd at 5582, 5614-15, paras. 59, 151-52. As a general matter, Internet traffic exchange involves the exchange of IP traffic between networks. An Internet traffic exchange arrangement determines which networks exchange traffic and the destinations to which those networks will deliver that traffic. In aggregate, Internet traffic exchange arrangements allow an end user of the Internet to interact with other end users on other Internet networks, including content or services that make themselves available by having a public IP address, similar to how the global public switched telephone network consists of networks that route calls based on telephone numbers. When we adopted the *2014 Open Internet NPRM*, the Chairman issued a separate, written statement suggesting that "the question of interconnection ('peering') between the consumer's network provider and the various networks that deliver to that ISP . . . is a different matter that is better addressed separately." *2014 Open Internet NPRM*, 29 FCC Rcd at 5647. While this statement reflected the Notice's tentative conclusion concerning Internet traffic exchange, it in no way detracts from the fact that the Notice also sought comment on "whether we should change our conclusion," whether to adopt proposals to "expand the scope of the open Internet rules to cover issues related to traffic exchange," and how to "ensure that a broadband provider would not be able to evade our open Internet rules by engaging in traffic exchange practices that would be outside the scope of the rules as proposed." *Id.* at 5582, para. 59.

[483] *See infra* Section IV.

[484] *See infra* para. 205.

[485] *See infra* Section V.

[486] *See, e.g.*, Verizon Reply at 57; CenturyLink Reply at 11.

[487] William Norton, *The Evolution of the U.S. Internet Peering Ecosystem*, Dr. Peering, http://drpeering.net/white-papers/Ecosystems/Evolution-of-the-U.S.-Peering-Ecosystem.html (last visited Feb. 5, 2015).

[488] *Id.*

networks.[489] A number of factors drive these trends in Internet traffic exchange.

197. Critically, the growth of online streaming video services has sparked further evolution of the Internet.[490] Content providers have come to rely on the services of commercial and private CDNs, which cache content close to end users, providing increased quality of service and avoiding transit costs.[491] While CDNs rely on transit to feed the array of CDN cache servers, they deliver traffic to broadband Internet access service providers via transit service or by entering into peering arrangements, directly interconnecting with broadband Internet access service providers.[492]

198. In addition, several large broadband Internet access service providers, such as AT&T, Comcast, Time Warner Cable, and Verizon, have built or purchased their own backbones, giving them the ability to directly interconnect with other networks and edge providers and thereby lowering and eliminating payments to third-party transit providers. These interconnection arrangements are "peering," involving the exchange of traffic only between the two networks and their customers, rather than paid transit, which provides access to the full Internet over a single interconnection.[493] Peering gives the

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[489] *See, e.g.*, Verizon Reply at 58 (explaining that "new arrangements [are] emerging on a regular basis to provide for efficient network planning and traffic delivery, as well as improved service for customers as their demands for Internet services continues to grow"); AT&T Reply at 96 ("For more than two decades, such interconnection has taken the form of 'transit' and 'peering' agreements, and in recent years, 'on-net-only' agreements have arisen in response to growing demands for video and other forms of media-rich content."); *see also* Werbach, Kevin D., The Centripetal Network: How the Internet Holds Itself Together, and the Forces Tearing it Apart (2009), 42 U.C. Davis L. Rev. , 343, 371 (2009), http://ssrn.com/abstract=1118435 (anticipating the evolving interconnection ecosystem).

[490] *See 2015 Broadband Progress Report* at para. 32 ("Consumers increasingly are choosing higher quality video services that demand increased bandwidth, and projections show new video service options and substantial growth in this area."). Currently, video is the dominant form of traffic on the Internet, with estimates that traffic from Netflix and YouTube constitutes approximately 50 percent of peak Internet download traffic. Sandvine Report: Netflix and Youtube Account for 50% of All North American Fixed Network Data, Sandvine (Nov. 11, 2013), https://www.sandvine.com/pr/2013/11/11/sandvine-report-netflix-and-youtube-account-for-50-of-all-north-american-fixed-network-data.html (stating also that video is very asymmetric and requires significant bandwidth). For instance, Netflix recommends a connection speed of at least 5 Mbps to watch its content in HD, while Google has reported that at least 2.5 Mbps is needed to sustain an average YouTube HD video playback at 720p resolution. Netflix, Internet Connection Speed Recommendations, https://support.netflix.com/en/node/306 (last visited Mar. 3, 2015); *see also* Google Apps Administrator, Bandwidth Limits, https://support.google.com/a/answer/1071518?hl=en (last visited Jan. 5, 2015). Many project continued growth of online streaming video services on both fixed and mobile platforms. *See*, *e.g.*, Letter from Jared Carlson, Director, Government Affairs and Public Policy, Ericsson, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 and 12-354 (filed Oct. 16, 2014), Attach. Ericsson Mobility Report (June 2014) at 13 (stating that in 2013, video accounted for approximately 40% of mobile data traffic, and is projected to account for more than 50% of mobile data traffic by 2019); Cisco Visual Networking Index (June 2014), http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white_paper_c11-481360.html (finding that globally, IP video traffic will be 79 percent of all consumer Internet traffic in 2018, up from 66 percent in 2013).

[491] *See, e.g.*, Akamai Comments at 4 ("At any given time Akamai delivers between 15-30% of all web traffic, resulting in over two trillion interactions delivered daily.").

[492] *See, e.g.*, Netflix, *Netflix Open Connect*, https://openconnect.itp.netflix.com/index.html (last visited Jan. 5, 2015); Google Peering & Content Delivery, *Google Caching Overview*, https://peering.google.com/about/ggc.html (last visited Jan. 5, 2015).

[493] *Joint Application of Time Warner Cable and Comcast Corp.*, MB Docket 14-57, at 36 (filed April 8, 2014) ("Comcast and TWC have independently developed their own national core backbone infrastructure."); *Verizon/MCI Merger Order*, 20 FCC Rcd at 18495, para. 116 ("Based on the record evidence, we find that there likely are between six and eight Tier 1 Internet backbone providers based on the definition of Tier 1 backbones that has been used in the past: AT&T, MCI, Sprint, Level 3, Qwest, Global Crossing, and likely SAVVIS and Cogent.").

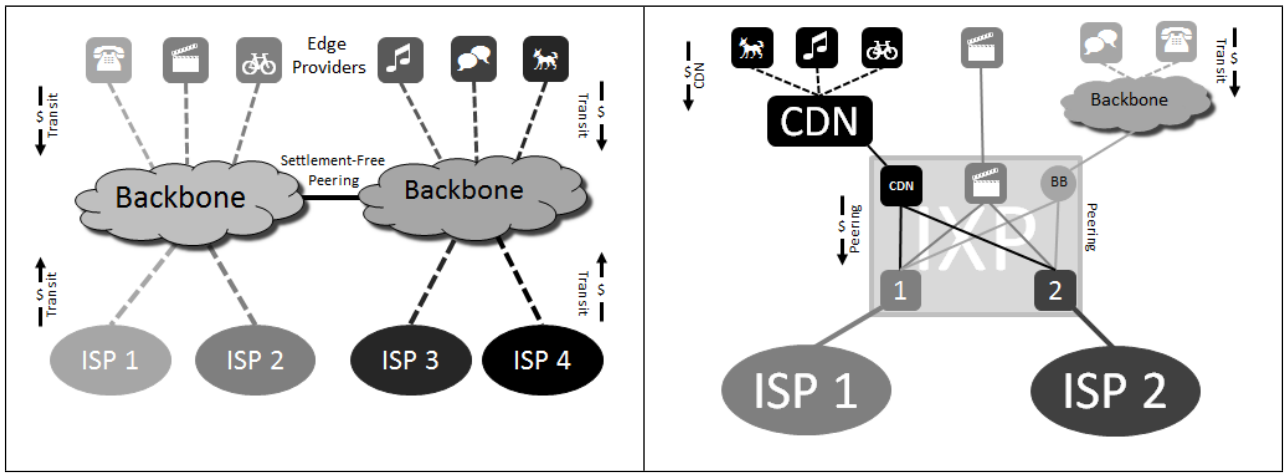
participants greater control over their traffic[494] and any issues arising with the traffic exchange are limited to those parties, and not other parties over other interconnection links. Historically, broadband Internet access service providers paid for transit and therefore had an incentive to agree to settlement-free peering with a CDN to reduce transit costs;[495] however, where large broadband Internet access service providers have their own national backbones and have settlement-free peering with other backbones, they may no longer have an incentive to agree to settlement-free peering with CDNs in order to avoid transit costs. As shown below in Chart 1, the evolution from reliance on transit to peering arrangements also means an evolution from a traffic exchange arrangement that provides access to the full Internet to a traffic exchange arrangement that only provides for the exchange of traffic from a specific network provider and its customers.[496]

Chart 1: Evolution in Transit Market	
Transit in the 1990s	**Paid Peering and CDNs Today**

[494] *See* William Norton, *The Evolution of the U.S. Internet Peering Ecosystem*, Dr. Peering, http://drpeering.net/white-papers/Ecosystems/Evolution-of-the-U.S.-Peering-Ecosystem.html ("Peering has the benefit of lower latency, better control over routing, and may therefore lead to lower packet loss.").

[495] *See, e.g.*, Verizon Reply at 58 ("In fact, today the majority of traffic destined for our end-user subscribers is delivered to Verizon over paid, direct connections with CDNs and large content providers, not over connections with our traditional, settlement-free peering partners."); Body of European Regulators for Electronic Communications, *An Assessment of IP Interconnection in the Context of Net Neutrality* at 47 (Dec. 6, 2012), http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/1130-an-assessment-of-ip-interconnection-in-t_0.pdf (BEREC Report); Netflix Petition to Deny, MB Docket No.14-57, Attach. A at 3 (Ken Florance states, "CDNs also can reduce the transit costs paid by terminating access networks (where such networks pay for transit), because more content is stored within or near the terminating access network and so does not need to be retrieved remotely.").

[496] J. Scott Marcus, *The Economic Impact of Internet Traffic Growth on Network Operators* at 4, WIK-Consult (Oct. 24, 2014), http://dx.doi.org/10.2139/ssrn.2531782 ("Very few ISPs are able, however, to use peering to reach *all* Internet destinations. Even well-connected ISPs typically purchase transit from one or two other ISPs in order to reach destinations that are not covered by their own peering arrangements.") (emphasis in original).



199. *Recent Disputes*. Recently, Internet traffic exchange disputes have reportedly involved not de-peering, as was more frequently the case in the last decade, but rather degraded experiences caused by congested ports between providers. In addition, these disputes have evolved from conflicts that may last a few days,[497] to disputes that have been sustained for well over a year,[498] and have gone from disputes between backbone service networks, to disputes between providers of broadband Internet access service and transit service providers, CDNs, or edge providers. The typical dispute has involved, on one side, a large broadband provider, and on the other side, a commercial transit provider (such as Cogent or Level 3) and/or a large CDN.[499] Multiple parties point out, however, that interconnection problems can harm more than just the parties in a dispute.[500] When links are congested and capacity is not augmented,

[497] *See, e.g.*, *Level 3 Issues Statement Concerning Internet Peering and Cogent Communications*, PR Newswire, (Oct. 7, 2005), http://www.prnewswire.com/news-releases/level-3-issues-statement-concerning-internet-peering-and-cogent-communications-55014572.html (indicating the dispute lasted several days); Martin A Brown, Clint Hepner, Alin Popescu, *Internet Captivity and the De-Peering Menace: Peering Wars: Episode 1239.174*, at 15 (Jan. 2009), http://research.dyn.com/wp-content/uploads/2014/07/nanog-45-Internet-Peering.pdf (stating that the outage lasted 3 days); Press Release, *Sprint and Cogent Reach Agreement on Exchange of Internet Traffic*, (Dec. 22, 2008), http://www.cogentco.com/news/press-releases/149-sprint-and-cogent-reach-agreement-on-exchange-of-internet-traffic (indicating the dispute lasted several days).

[498] *See* MLab ISP Interconnection Report at 4 (observing sustained performance degradation experienced by customers of AT&T, Comcast, CenturyLink, Time Warner Cable, and Verizon when their traffic passed over interconnections with transit providers Cogent, Level 3, and XO Communications); *Measuring Internet Congestion: A Preliminary Report*, MIT Information Policy Project (June 2014); Matthew Luckie, Amogh Dhamdhere, Bradley Huffaker, Young Hyun, Steve Bauer, *Internet Interdomain Congestion* at 10 (Feb. 2014), http://www.caida.org/publications/presentations/2014/bitag-congestion/bitag-congestion.pdf.

[499] *See, e.g.*, Netflix, *The Case Against ISP Tolls* (Apr. 24, 2014), http://blog.netflix.com/2014/04/the-case-against-isp-tolls.html; Comcast, *Comcast Response to Netflix* (Apr. 24, 2014), http://corporate.comcast.com/comcast-voices/comcast-response-to-netflix; Paresh Dave, Netflix, *Time Warner Cable reach deal on streaming quality*, L.A. Times (Aug. 20, 2014), http://www.latimes.com/business/technology/la-fi-tn-netflix-time-warner-cable-20140820-story.html; AT&T Public Policy Blog, *Who Should Pay for Netflix?* (Mar. 21, 2014), http://www.attpublicpolicy.com/consumers-2/who-should-pay-for-netflix/; Verizon Policy Blog, *Level 3's Selective Amnesia on Peering* (July 21, 2014), http://publicpolicy.verizon.com/blog/entry/level-3s-selective-amnesia-on-peering; Level 3 Communications Blog, *Verizon's Accidental Mea Culpa* (July 17, 2014), http://blog.level3.com/open-internet/verizons-accidental-mea-culpa/.

[500] Letter from Sarah J. Morris, Senior Policy Counsel, Open Technology Institute, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, MB Docket No. 14-57 (filed Nov. 18, 2014), Attach. Open Technology

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the networks—and applications, large and small, running over the congested links into and out of those networks—experience degraded quality of service due to reduced throughput, increased packet loss, increased delay, and increased jitter.[501] At the end of the day, consumers bear the harm when they experience degraded access to the applications and services of their choosing due to a dispute between a large broadband provider and an interconnecting party.[502] Parties also assert that these disputes raise concerns about public safety and network reliability.[503] To address these growing concerns, a number of parties have called for extending the rules proposed in the *2014 Open Internet NPRM* to Internet traffic exchange practices.

200. The record reflects competing narratives. Some edge and transit providers assert that large broadband Internet access service providers are creating artificial congestion by refusing to upgrade interconnection capacity at their network entrance points for settlement-free peers or CDNs, thus forcing edge providers and CDNs to agree to paid peering arrangements.[504] These parties suggest that paid arrangements resulting from artificially congested interconnection ports at the broadband Internet access service provider network edge could create the same consumer harms as paid arrangements in the last-mile, and lead to paid prioritization, fast lanes, degradation of consumer connections, and ultimately, stifling of innovation by edge providers.[505] Further, edge providers argue that they are covering the costs

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Institute, "Beyond Frustrated": The Sweeping Consumer Harms As a Result of ISP Disputes, at 2 (Nov. 2014) (OTI Consumer Harms Policy Paper).

[501] *Id.* ; Letter from Michael J. Mooney, Senior Vice President and General Counsel, Regulatory Policy, Level 3, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25, GN Docket Nos. 14-28, 09-191, at 2 (filed Nov. 19, 2014) (Level 3 Nov. 19, 2014 *Ex Parte* Letter) (explaining that congested interconnection points result in "dropped packets and a degraded consumer experience"); Sandoval *Ex Parte* Letter, Attach. at 22-24 (reporting slow connection speeds during the Comcast-Cogent traffic exchange dispute, and explaining that other applications that were affected included gaming, VPN, and VoIP (including compliance with 911 standards)).

[502] OTI Consumer Harms Policy Paper at 1-5.

[503] *See, e.g.*, Sandoval *Ex Parte* Letter, Attach. at 24 (asserting, for example, that difficulties in using interconnected VoIP service amidst a broadband provider dispute with a server host or content provider raise grave concerns about public safety and network reliability).

[504] *See, e.g.*, Letter from Markham C. Erickson, Counsel to Netflix, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. at 2 (filed Aug. 1, 2014) (Netflix Aug. 1, 2014 *Ex Parte* Letter) (asserting that "[i]n the case of Comcast, Netflix purchased all available transit to reach Comcast's network. Every single one of those transit links to Comcast was congested (even though the transit providers requested extra capacity). The only other available routes into Comcast's network were those where Comcast required an access fee."); Letter from Robert M. Cooper, Counsel to Cogent, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Mar. 19, 2014) (Cogent Mar. 19, 2014 *Ex Parte* Letter); Letter from Joseph C. Cavender, Level 3, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed May 13, 2014) (Level 3 May 13, 2014 *Ex Parte* Letter) (asserting that "some of the biggest consumer broadband ISPs have allowed the interconnections between their networks and backbone providers like Level 3 to congest, causing packets to be dropped and harming their own users' Internet experiences"); Netflix Comments at 14-15. *But see* Letter from Kathryn A. Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2 (filed Nov. 10, 2014) (Comcast Nov. 10, 2014 *Ex Parte* Letter) ("Certainly Netflix would not have entered into direct agreements with Comcast, Verizon, Time Warner Cable, and AT&T unless doing so provided economic advantages over paying middlemen to reach these same companies—and of course, these arrangements have in turn reduced Netflix's need for Cogent's and other transit providers' services, not only reducing Netflix's costs but freeing up transit capacity for other entities.").

[505] *See* Internet Association Comments at 22; COMPTEL Comments at 25; Netflix Comments at 12 (arguing that its dispute with Comcast shows how a broadband provider "can use its terminating access monopoly to harm edge providers, its own customers, and the virtuous circle by discriminating at interconnection and peering points"); Netflix Reply at 6 ("From a consumer's perspective, whether degradation occurs on the last mile or at the

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of carrying this traffic through the network, bringing it to the gateway of the Internet access service, unlike in the past where both parties covered their own costs to reach the Tier 1 backbones where traffic would then be exchanged on a settlement-free basis.[506] Edge and transit providers argue that the costs of adding interconnection capacity or directly connecting with edge providers are *de minimis*.[507] Further, they assert that traffic ratios "are arbitrarily set and enforced and are not reflective of how [broadband providers] sell broadband connections and how consumers use them."[508] Thus, these edge and transit providers assert that a focus on only the last-mile portion of the Internet traffic path will fail to adequately constrain the potential for anticompetitive behavior on the part of broadband Internet access service providers that serve as gatekeepers to the edge providers, transit providers, and CDNs seeking to deliver Internet traffic to the broadband providers' end users.[509]

201. In contrast, large broadband Internet access service providers assert that edge providers such as Netflix are imposing a cost on broadband Internet access service providers who must constantly upgrade infrastructure to keep up with the demand.[510] Large broadband Internet access service providers explain that when an edge provider sends extremely large volumes of traffic to a broadband Internet access service provider— e.g., through a CDN or a third-party transit service provider—the broadband

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interconnection point to the last mile is a distinction without a difference. Both impede a consumer's access to the online content she has requested."); OTI Reply at 11-12; Cogent Mar. 19, 2014 *Ex Parte* Letter at 1 ("While some large edge providers may be able to pay a toll to create a way around such congestions, smaller firms will not, thereby driving consumers to use better performing, vertically integrated content and stifling the investment and innovation that has been the hallmark of the Internet since its inception."); Netflix Aug. 1, 2014 *Ex Parte* Letter, Attach. at 1.

[506] *See, e.g.*, OTI Consumer Harms Policy Paper at 3 ("Cogent and Netflix argued that they paid their fair share by bringing the data to Comcast's front door.").

[507] *See, e.g.*, Cogent Mar. 19, 2014 *Ex Parte* Letter at 1 (stating that "capital expenditures required to remedy congestion at interconnection points are extremely modest"); Level 3 Comments at 12 ("Adding and maintaining cross-connects in these locations is not a significant cost. Moreover, the cost of adding additional ports, if ones are needed, is quite modest. The costs of physical interconnection facilities do not come near to accounting for the amount of tolls sought by the large mass-market retail ISPs.").

[508] Netflix Aug. 1, 2014 *Ex Parte* Letter, Attach. at 2.

[509] *See, e.g.*, ARC Comments at 15; AARP Comments at 18; Access Comments at 19; eBay Comments at 5; Letter from Michael A. Forscey, Counsel for WGAW, Inc. to Marlene H. Dortch, WC Docket No. 14-28, at 2 (filed July 31, 2014) (WGAW July 31, 2014 *Ex Parte* Letter); Jon Peha Comments at 11-12 (urging the Commission to consider greater transparency in interconnection); Level 3 Comments at 2 (stating that "establishing rules addressing 'direct' charges imposed by [broadband providers] on edge providers but not for 'indirect' charges levied on the edge providers' [broadband providers] through interconnection is a roadmap for evasion of new Open Internet rules"); Cogent Comments at 7 ("Without addressing traffic exchanges between last-mile broadband [providers] and other networks, the Commission would perpetuate a loophole that would swallow the rule."); Netflix Comments at 2-3 (asserting that "[f]ailing to address interconnection abuse by terminating [broadband providers] will undermine the efficacy of any open Internet or consumer protection rule that the Commission adopts"); *id.* at 11, 17-18; Netflix Reply at 9; Writers Guild of America, East Comments at 5 (stating that "as long as there are only one or two viable ISPs in any given market, and as long as those ISPs are free to make anti-competitive arrangements with edge providers and others that are positioned farther up the road and not on the 'last mile,' the bedrock principles of openness and nondiscrimination will be unenforceable"); COMPTEL Comments at 26 ("The same economic forces that threaten the openness of [a] consumer's last-mile broadband connection are present at the point of interconnection."); *id.* at 26-30; WISPA Comments at 26; Level 3 Nov. 19, 2014 *Ex Parte* Letter at 1-2.

[510] *See, e.g.*, Verizon Reply at 63; Letter from Robert C. Barber, AT&T to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, CC Docket No. 01-92, GN Docket No. 14-28, Attach. at 15-19 (filed July 30, 2014) (AT&T July 30, 2014 *Ex Parte* Letter).

provider must invest in additional interconnection capacity (e.g., new routers or ports on existing routers) and middle-mile transport capacity in order to accommodate that traffic, exclusive of "last-mile" costs from the broadband Internet access provider's central offices, head ends, or cell sites to end-user locations.[511] Commenters assert that if the broadband Internet access service provider absorbs these interconnection and transport costs, *all* of the broadband provider's subscribers will see their bills rise.[512] They argue that this is unfair to subscribers who do not use the services, like Netflix, that are driving the need for additional capacity. Broadband Internet access service providers explain that settlement-free peering fundamentally is a barter arrangement in which each side receives something of value.[513] These parties contend that if the other party is only sending traffic, it is not contributing something of value to the broadband Internet access service provider.

202. *Mechanism to Resolve Traffic Exchange Disputes*. As discussed, Internet traffic exchange agreements have historically been and will continue to be commercially negotiated. We do not believe that it is appropriate or necessary to subject arrangements for Internet traffic exchange (which are subsumed within broadband Internet access service) to the rules we adopt today. We conclude that it would be premature to adopt prescriptive rules to address any problems that have arisen or may arise.[514] It is also premature to draw policy conclusions concerning new paid Internet traffic exchange arrangements between broadband Internet access service providers and edge providers, CDNs, or

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[511] *See, e.g.*, Letter from Craig A. Gilley, Counsel for Mediacom Communications Corporation, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 10-71, GN Docket No. 14-28, at 2 (filed Jun. 12, 2014) (Mediacom Jun. 12, 2014 *Ex Parte* Letter) (stating that "if the large edge providers that benefit the most from the investment that Mediacom and other ISPs make in their broadband networks, then there should be nothing wrong with requiring them to bear their fair share of the burden of such upgrades"). *But see* Netflix Aug. 1 *Ex Parte* Letter, Attach. at 2 (stating that Netflix "incurs the cost of moving Netflix content long distances, closer to the consumer, not the broadband Internet access provider").

[512] *See, e.g.*, AT&T Reply at 105-106; Comcast Reply at 37; Mediacom Jun. 12, 2014 *Ex Parte* Letter at 2 ("ISPs and consumers should not be the sole parties bearing the costs for network improvements required for consumers to access large edge provider services."); Verizon Reply at 63 ("Instead of Netflix—and ultimately its users—bearing the costs of the capacity needed to accommodate the increased traffic caused by Netflix's streaming video service, all of an ISP's customers would have to pay more, even if they never use Netflix or stream movies at all.").

[513] *See* AT&T July 30, 2014 *Ex Parte* Letter, Attach. at 3 (explaining that peering is a "commercially negotiated barter transaction" where "parties' perceived value of arrangement is equal"); AT&T Reply at 95, n.343.

[514] *See, e.g.*, Verizon Reply at 59-60 ("The breadth and variety of the voluntary Internet interconnection agreements . . . reflect that the market for Internet interconnection has been and continues to be a resounding success. Although there are occasionally bumps in the road as content providers and networks grapple with the effects of newer business models, new services, shifting traffic flows, or growing volume—such as the introduction of Netflix's streaming video service in 2007 and the rapid growth of that traffic in subsequent years—the players in the Internet ecosystem have been able to resolve issues through negotiations for new types of interconnection arrangements rather than in contentious, drawn-out proceedings before the Commission."); AT&T Reply at 98-99; TWC Comments at 23, 30; Verizon Comments at 70-73; CEA Comments at 11. *But see, e.g.*, Level 3 Comments at 15 (stating the Commission should adopt an interconnection rule where "large mass-market retail ISPs must interconnect with content companies and backbone providers without charging them a toll, but those content and backboned companies must also do their fair share of the work to deliver content to the ISP"); Netflix Comments at 17 (stating the Commission should adopt a rule that "terminating ISPs cannot charge data sources for interconnection and must provide adequate no-fee interconnection to wholesalers and Internet services so consumers experience the broadband speeds for which they have paid"); Letter from Joshua Stager, Counsel for Open Technology Institute to Marlene H. Dortch, WC Docket No. 14-28, at 2 (filed Dec. 22, 2014) (OTI Dec. 22, 2014 *Ex Parte* Letter) (stating that the Commission should "create a measurement regime to analyze congestion along critical interconnection points. . . . [and] ban fees for access to last-mile networks"). We decline to adopt these and similar types of proposals for the same reasons we decline to apply the open Internet rules to traffic exchange.

backbone services.[515] While the substantial experience the Commission has had over the last decade with "last-mile" conduct gives us the understanding necessary to craft specific rules based on assessments of potential harms, we lack that background in practices addressing Internet traffic exchange.[516] For this reason, we adopt a case-by-case approach, which will provide the Commission with greater experience. Thus, we will continue to monitor traffic exchange and developments in this market.[517]

203. At this time, we believe that a case-by-case approach is appropriate regarding Internet traffic exchange arrangements between broadband Internet access service providers and edge providers or intermediaries—an area that historically has functioned without significant Commission oversight.[518] Given the constantly evolving market for Internet traffic exchange, we conclude that at this time it would be difficult to predict what new arrangements will arise to serve consumers' and edge providers' needs going forward, as usage patterns, content offerings, and capacity requirements continue to evolve.[519] Thus, we will rely on the regulatory backstop prohibiting common carriers from engaging in unjust and unreasonable practices. Our "light touch" approach does not directly regulate interconnection practices. Of course, this regulatory backstop is not a substitute for robust competition. The Commission's regulatory and enforcement oversight, including over common carriers, is complementary to vigorous antitrust enforcement.[520] Indeed, mobile voice services have long been subject to Title II's just and reasonable standard and both the Commission and the Antitrust Division of the Department of Justice have repeatedly reviewed mergers in the wireless industry. Thus, it will remain essential for the Commission, as well as the Department of Justice, to continue to carefully monitor, review, and where appropriate, take action against any anti-competitive mergers, acquisitions, agreements or conduct, including where broadband Internet access services are concerned.

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[515] For instance, Akamai expresses concern that adoption of rules governing interconnection could be used as a justification by some broadband providers to refuse direct interconnection to CDNs and other content providers generally, on the theory that connecting with *any* CDN necessitates connecting with *all* CDNs, regardless of technical feasibility. We do not intend such a result by our decision today to assert authority over interconnection. *See* Letter from Scott Blake Harris, Counsel to Akamai, to Marlene H. Dortch, Secretary, FCC, GN Docket No.14-28, at 1 (filed Feb. 20, 2015) ("If the Order is unclear, ISPs may believe they must provide access to all. This is not technically feasible and the result could be access for none, which would decrease the performance, scalability, reliability and security of the Internet.").

[516] *See, e.g.*, Cox Comments at 16 ("Internet traffic-exchange arrangements . . . present a distinct and significantly more complex set of issues than the delivery of Internet content and services over a single network operator's last-mile facilities.").

[517] *See, e.g.*, Letter from New America Foundation, Media Access Project, Free Press, to Dep't of Justice and FCC, GN Docket Nos. 10-127, 09-191, MB Docket No. 10-56, WC Docket No. 07-52, at 2 (filed Dec. 8, 2010) ("**The Recent Dispute Between Comcast and Level 3 Illustrates Emerging Concerns Regarding Interconnection Practices and Highlights the Need for Federal Oversight of Interconnection.**"); ARCEP, French Regulator for Telecommunications, *Public Administrations' Approach to IP-Interconnection*, (June 20, 2012) (seeking to "better understand the market and monitor its evolutions").

[518] We note, however, that the Commission has looked at traffic exchange in the context of mergers and, sometimes imposed conditions on traffic exchange. *See, e.g.*, *Comcast/NBCU Merger Order*, 26 FCC Rcd 4238; *Verizon/MCI Merger Order*, 20 FCC Rcd 18433.

[519] *See, e.g.*, Akamai Comments at 7 (stating that "the projected exponential growth of Internet traffic" will make the ability of market participants to develop innovative traffic exchange solutions "increasingly important to the robust functioning of the Internet"); Cox Reply at 21-22; NCTA Comments at 81 ("[T]he constantly evolving and technically complicated nature of these agreements is all the more reason for the Commission to allow market forces to determine their terms.").

[520] *See generally* 47 U.S.C § 152(b) ("nothing in this Act . . . shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws").

204. Broadband Internet access service involves the exchange of traffic between a last-mile broadband provider and connecting networks.[521] The representation to retail customers that they will be able to reach "all or substantially all Internet endpoints" necessarily includes the promise to make the interconnection arrangements necessary to allow that access. As a telecommunications service, broadband Internet access service implicitly includes an assertion that the broadband provider will make just and reasonable efforts to transmit and deliver its customers' traffic to and from "all or substantially all Internet endpoints" under sections 201 and 202 of the Act. In any event, BIAS provider practices with respect to such arrangements are plainly "for and in connection with" the BIAS service.[522] Thus, disputes involving a provider of broadband Internet access service regarding Internet traffic exchange arrangements that interfere with the delivery of a broadband Internet access service end user's traffic are subject to our authority under Title II of the Act.[523]

205. We conclude that our actions regarding Internet traffic exchange arrangements are reasonable based on the record before us, which demonstrates that broadband Internet access providers have the ability to use terms of interconnection to disadvantage edge providers and that consumers' ability to respond to unjust or unreasonable broadband provider practices are limited by switching costs.[524] These findings are limited to the broadband Internet access services we address today.[525] When Internet traffic exchange breaks down—regardless of the cause—it risks preventing consumers from

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[521] We disagree with commenters who argue that arrangements for Internet traffic exchange are private carriage arrangements, and thus not subject to Title II. *See, e.g.*, Letter from William H. Johnson, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 7-8 (filed Dec. 17, 2014) (Verizon Dec. 17, 2014 *Ex Parte* Letter); Letter from Matt Wood, Free Press, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2 (filed Feb. 11, 2015). As we explain below in today's Declaratory Ruling, Internet traffic exchange is a component of broadband Internet access service, which meets the definition of "telecommunications service." *See infra* para. 23.

[522] *See* 47 U.S.C. §§ 201(b), 202(a). *See* Letter from Austin C. Schlick, Director, Communications Law, Google, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28 at 3 (filed Feb. 20, 2015) (Google Feb. 20, 2015 *Ex Parte* Letter).

[523] We note that the Commission has forborne from application of many of the requirements of Title II to broadband Internet access service. *See infra* Section V.

[524] *See supra* Sections III.B.2.a, III.C.

[525] We observe that should a complaint arise regarding BIAS provider Internet traffic exchange practices, practices by edge providers (and their intermediaries) would be considered as part of the Commission's evaluation as to whether BIAS provider practices were "just and reasonable" under the Act. *See* Letter from Robert M. Cooper, Counsel for Cogent, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2 (filed Feb. 11, 2015) ("Cogent takes no issue with having its interconnection practices subject to the same standards as mass market broadband Internet access providers."); Verizon Dec. 17, 2014 *Ex Parte* Letter at 3 (asserting that "Netflix, Cogent, and numerous other Internet players make decisions on their own networks that affect the speeds or performance that end users experience"); Letter from Kathryn A. Zachem, Senior Vice President, Comcast to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 at 5 (filed Jan. 23, 2015) (Comcast Jan. 23, 2015 *Ex Parte* Letter) ("[W]here the Commission has sought to regulate only one party to an interconnection arrangement, the result has been ineffective and an invitation to arbitrage. Indeed, recent efforts to regulate interconnection in the voice arena—including both the Commission's adoption of rules governing non-access traffic exchanged between LECs and CMRS carriers and pending proposals regarding IP-to-IP interconnection—recognize that the public interest typically is best served by the imposition of at least certain reciprocal obligations on both parties to an interconnection arrangement."); Letter from Samuel L. Feder, on behalf of Charter, GN Docket Nos. 14-28, 10-127, 07-245, at 1-2 (filed Feb. 4, 2015) ("[T]he Commission [should] not regulate Internet interconnection, but if it does so (whether via rules or on a case-by-case basis), it should make clear that it will police the actions of edge providers and others in the Internet ecosystem equally to those of ISPs.").

reaching the services and applications of their choosing, disrupting the virtuous cycle. We recognize the importance of timely review in the midst of commercial disputes. The Commission will be available to hear disputes raised under sections 201 and 202 on a case-by-case basis. We believe this is an appropriate vehicle for enforcement where disputes are primarily between sophisticated entities over commercial terms and that include companies, like transit providers and CDNs, that act on behalf of smaller edge providers. We also observe that section 706 provides the Commission with an additional, complementary source of authority to ensure that Internet traffic exchange practices do not harm the open Internet. As explained above, we have decided not to adopt specific regulations that would detail the practices that would constitute circumvention of the open Internet regulations we adopt today. Instead, and in a manner similar to our treatment of non-BIAS services,[526] we will continue to monitor Internet traffic exchange arrangements and have the authority to intervene to ensure that they are not harming or threatening to harm the open nature of the Internet.

206. The record also reflects a concern that our decision to adopt this regulatory backstop violates the Administrative Procedure Act.[527] We disagree. To be clear, consistent with the NPRM's proposal, we are not applying the open Internet rules we adopt today to Internet traffic exchange. Rather, certain regulatory consequences flow from the Commission's classification of BIAS, including the traffic exchange component, as falling within the "telecommunications services" definition in the Act.[528] In all events, the *2014 Open Internet NPRM* provided clear notice about the possibility of expanding the scope of the open Internet rules to cover issues related to traffic exchange.[529] It also made clear that the Commission was considering whether to reclassify retail broadband services.[530] In addition, the *2014 Open Internet NPRM* asked: "how can we ensure that a broadband provider would not be able to evade

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[526] *See infra* paras. 210-212.

[527] Verizon claims that "in light of the Commission's past statements on interconnection, to suddenly regulate [interconnection] agreements for the first time in a final rule in this proceeding would violate the notice and comment requirements of the Administrative Procedure Act" and that even issuing a Further Notice of Proposed Rulemaking would not allow the Commission to impose Title II regulations on interconnection services. Verizon Dec. 17, 2014 *Ex Parte* Letter at 3; Letter from Matthew A. Brill, Counsel for NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 8 (filed Jan. 14, 2015) (NCTA Jan. 14, 2015 *Ex Parte* Letter) ("[T]he NPRM does not provide notice of any proposal to adopt any new Internet traffic-exchange regulations pursuant to Title II . . . . Nowhere did the Commission remotely indicate that it was considering classifying the distinct wholesale Internet traffic-exchange services that ISPs provide to other network owners as Title II telecommunications services. The Administrative Procedure Act therefore bars the Commission from subjecting such arrangements to regulation under Title II."). The dissenting statements likewise assert that the *2014 Open Internet NPRM* did not provide notice of the possibility that the Commission would assert authority over interconnection. *See, e.g.*, O'Rielly Dissent at 10.

[528] *See Syncor Int'l v. Shalala*, 27 F.3d 90, 94 (D.C. Cir. 1997) (distinguishing that a change in interpretative rule depends on whether interpretation is of a rule or a statute, since in the latter case agency does not claim to be exercising authority to make positive law).

[529] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5582, para. 59; *id.* at 5615, paras. 151-152. Section 553 provides that "[g]eneral notice of proposed rulemaking shall be published in the Federal Register," and that "[a]fter notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making" through submission of comments. 5 U.S.C. § 553(b), (c). The Commission published the *NPRM* in the Federal Register on July 1, 2014. 79 Fed. Reg. 37448 (July 1, 2014).

[530] *2014 Open Internet NPRM*, 29 FCC Rcd at 5615, para. 151 ("We seek comment on whether and, if so how, the Commission should separately identify and classify a broadband service that is furnished by broadband providers' to edge providers in order to protect and promote Internet openness.") *id.* at para. 149 ("We now seek further and updated comment on whether the Commission should revisit its prior classification decisions and apply Title II to broadband Internet access service (or components thereof.").

our open Internet rules by engaging in traffic exchange practices that would be outside the scope of the rules as proposed?"[531] As discussed above, our assertion of authority over Internet traffic exchange practices addresses that question by providing us with the necessary case-by-case enforcement tools to identify practices that may constitute such evasion and address them. Further, to the extent that any doubts remain about whether the *2014 Open Internet NPRM* provided sufficient notice, the approach adopted today is also a logical outgrowth of the original proposal included in the *2014 Open Internet NPRM*.[532] The numerous submissions in the record at every stage of the proceeding seeking to influence the Commission in its decision to adopt policies regulating Internet traffic exchange[533] illustrate that the Commission not only gave interested parties adequate notice of the possibility of a rule, but that parties considered Commission action on that proposal a real possibility.[534]

3. Non-BIAS Data Services

207. In the *2014 Open Internet NPRM*, the Commission tentatively concluded that it should not apply its conduct-based rules to services offered by broadband providers that share capacity with broadband Internet access service over providers' last-mile facilities, while closely monitoring the development of these services to ensure that broadband providers are not circumventing the open Internet rules.[535] After reviewing the record, we believe the best approach is to adopt this tentative conclusion to permit broadband providers to offer these types of services while continuing to closely monitor their development and use.[536] While the *2010 Open Internet Order* and the *2014 Open Internet NPRM* used the

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[531] *2014 Open Internet NPRM*, 29 FCC Rcd at 5582, para. 59.

[532] *Public Service Comm'n of D.C. v. FCC*, 906 F.2d 713, 718 (D.C. Cir. 1990). *Contra* NCTA Jan. 14, 2015 *Ex Parte* Letter at 8, n.28 ("[T]he NPRM explained that the Commission understood the latter proposals to 'include the flow of Internet traffic *on the broadband providers' own network*, and *not* how it gets *to* the broadband providers' networks.' . . . The Commission cannot now assert that regulating the exchange of Internet traffic *between* two networks is a logical outgrowth of the NPRM, given that it expressly disclaimed any such intent.") (emphasis included in original).

[533] *See, e.g.*, COMPTEL Comments at 9-10; eBay Comments 5; Level 3 Comments at 12-14; Netflix Comments at 11-12; Writers Guild of America, West Comments at 17; AT&T Reply at 93; CenturyLink Reply at 10; Comcast Reply at 38; Cox Reply at 20; Verizon Reply at 57; NCTA Dec. 23, 2014 *Ex Parte* Letter at 22-25; Cox Feb. 4 *Ex Parte* Letter at 1-2.

[534] *See, e.g.*, *N.E. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 952 (D.C. Cir. 2004) (per curiam) (rejecting a notice challenge when the record revealed that multiple parties had in fact anticipated the possibility of the agency's action); *Alto Dairy v. Veneman*, 336 F.3d 560, 570 (7th Cir. 2003) (notice adequate where industry insiders would have understood proposals under consideration even though they were "gobbledygook to an outsider"); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547-48 (D.C. Cir. 1983); *BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 644 (1st Cir. 1979), *cert. denied*, 444 U.S. 1096 (1980); *Rybachek v. EPA*, 904 F.2d 1276, 1287-88 (9th Cir. 1990) (imposing mandatory requirement based on strong recommendations in public comments was "logical outgrowth" of case-by-case requirement originally proposed); *see also* Letter from Markham C. Erickson, Counsel for COMPTEL, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 8-10 (filed Feb. 19, 2015).

[535] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5582, para. 60; *see also 2010 Open Internet Order*, 25 FCC Rcd at 17966, para. 114. ("We would also be concerned by any marketing, advertising, or other messaging by broadband providers suggesting that one or more specialized services, taken alone or together, and not provided in accordance with our open Internet rules, is 'Internet' service or a substitute for broadband Internet access service.").

[536] *See, e.g.*, Bright House Comments at 19 ("The Commission should certainly be free to continue monitoring specialized services, but there is no basis for expanding the scope of the rule to cover specialized services."); Utilities Telecom Council Reply at 3 ("UTC encourages the Commission to clarify that specialized services are

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term "specialized services" to refer to these types of services, the term "non-BIAS data services" is a more accurate description for this class of services. While the services discussed below are not broadband Internet access service, and thus the rules we adopt do not apply to these services, we emphasize that we will act decisively in the event that a broadband provider attempts to evade open Internet protections (e.g., by claiming that a service that is the equivalent of Internet access is a non-BIAS data service not subject to the rules we adopt today).

208. We provide the following examples of services and characteristics of those services that, at this time, likely fit within the category of services that are not subject to our conduct-based rules. As indicated in the *2010 Open Internet Order*, some broadband providers' existing facilities-based VoIP and Internet Protocol-video offerings would be considered non-BIAS data services under our rules.[537] Further, the *2010 Open Internet Order* also noted that connectivity bundled with e-readers, heart monitors, or energy consumption sensors would also be considered other data services to the extent these services are provided by broadband providers over last-mile capacity shared with broadband Internet access service.[538] Additional examples of non-BIAS data services may include limited-purpose devices such as automobile telematics, and services that provide schools with curriculum-approved applications and content.[539]

209. These services may generally share the following characteristics identified by the Open Internet Advisory Committee.[540] First, these services are not used to reach large parts of the Internet. Second, these services are not a generic platform—but rather a specific "application level" service. And third, these services use some form of network management to isolate the capacity used by these services from that used by broadband Internet access services.

210. We note, however, that non-BIAS data services may still be subject to enforcement

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outside of the scope of the Commission's Open Internet rules and that broadband Internet service providers may provide priority access via specialized services and during emergencies.").

[537] *2010 Open Internet Order*, 25 FCC Rcd at 17965, para. 112 ("These 'specialized services,' such as some broadband providers' existing facilities-based VoIP and Internet Protocol-video offerings, differ from broadband Internet access service and may drive additional private investment in broadband networks and provide end users valued services, supplementing the benefits of the open Internet."); *see also, e.g.*, CenturyLink Comments at 22-23 ("[S]pecialized services such as IPTV and facilities-based VoIP rightly fall outside the scope of the Commission's Open Internet rules. These services should continue to be excluded from the rules."); Letter from Christopher S. Yoo to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 09-191, 10-127, at 1 (Sept. 22, 2014) ("[S]pecialized services are essential to many commonplace services such as IP video and voice over LTE.").

[538] *2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47 n.149.

[539] *See, e.g.*, Sandvine Comments at 8; Syntonic Reply at 11; Letter from Brian Hendricks, Head of Technology Policy and Government Relations, Nokia to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 et al, at 1 (filed Dec. 12, 2014) ("[T]he ability to create specialized classes of services is critical to the development of technologies requiring very low latency, large throughput, and minimal packet loss including autonomous driving and streaming of live broadcast events."); Letter from William Johnson, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3 (filed Oct. 17, 2014) ("As technology evolves, future specialized services could include things like telehealth, connected car, Smart Grid, and a wide range of machine-to-machine services that are distinct from mass market Internet access."). *See also* General Motors, *OnStar: Safe & Connected, Innovation: Design & Technology*, http://www.gm.com/vision/design_technology/onstar_safe_connected.html (last visited Feb. 1, 2015); Amazon, *Kindle*, https://www.amazon.com/gp/digital/fiona/kcp-landing-page?ie=UTF8&ref_=klp_f_win (last visited Feb. 1, 2015); WikimediaFoundation, *Wikipedia Zero*, http://wikimediafoundation.org/wiki/Wikipedia_Zero (last visited Feb. 1, 2015).

[540] Open Internet Advisory Committee, 2013 Annual Report (Aug. 20, 2013), at 69, http://transition.fcc.gov/cgb/oiac/oiac-2013-annual-report.pdf (2013 OIAC Annual Report).

action. Similar to the Commission's approach in 2010, if the Commission determines that a particular service is "providing a functional equivalent of broadband Internet access service, or . . . is [being] used to evade the protections set forth in these rules," we will take appropriate enforcement action.[541] Further, if the Commission determines that these types of service offerings are undermining investment, innovation, competition, and end-user benefits, we will similarly take appropriate action. We are especially concerned that over-the-top services offered over the Internet are not impeded in their ability to compete with other data services.[542]

211. The record overwhelmingly supports our decision to continue treating non-BIAS data services differently than broadband Internet access service under the open Internet rules.[543] This approach will continue to drive additional investment in broadband networks and provide end users with valued services without otherwise constraining innovation.[544] Further, as noted by numerous commenters, since other data services were permitted in the *2010 Open Internet Order*, we have seen little resulting evidence of broadband providers using these services to undermine the 2010 rules.[545]

212. Nevertheless, non-BIAS data services still could be used to evade the open Internet rules.[546] Due to these concerns, we will continue to monitor the market for non-BIAS data services to

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[541] *2010 Open Internet Order*, 25 FCC Rcd at 17966, para. 113.

[542] Further, we anticipate that consumers of competing over-the-top services will not be disadvantaged in their ability to access 911 service.

[543] *See, e.g.*, Verizon Comments at 76 ("Specialized services are by definition distinct from the customer's broadband Internet access service – they merely supplement such service, increasing the range of options available to the consumer and expanding consumer welfare . . . As technology advances and turns concepts such as remote surgery, distance-learning, and the Internet of Things into realities, the ability to offer specialized services could be critical to promoting consumer interests and national policy priorities."); ITIC Comments at 7 ("Specialized services should also be permitted so long as they do not adversely affect the provision of a robust and evolving basic Internet access tier to consumers or harm competition."); TIA Reply at 12 ("[W]ith new cloud storage and services hosting capabilities and increased security and privacy features, the processing and transmission components of these services are increasingly intertwined, which would make the application of such rules [to specialized services] complex.").

[544] *2010 Open Internet Order*, 25 FCC Rcd at 17965, para. 112; Letter from Maggie McCready, Vice President Federal Regulatory Affairs, Verizon to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Dec. 5, 2014) (Verizon Dec. 5, 2014 *Ex Parte* Letter) ("These services are rapidly evolving and offer the promise of more choice for consumers."); Letter from Henry Hultquist, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 1 (filed Jan. 29, 2014) ("Without the opportunity to offer services like IP video, broadband providers would invest less and consumer would pay more for broadband Internet access."); TIA Comments at 3 ("[T]here is no need for the FCC to change course away from simply monitoring the development of specialized services. These offerings, which may share the same last-mile connections as broadband Internet access service, can help spur investment in broadband facilities."); MIT Media Lab Comments at 2-3 ("As long as non-discriminatory Internet access is available, we see no reason to prevent the addition of other specialized, for-fee services. Nor do we see the need to restrict a vibrant market in developing and implementing them."); Comcast Reply at 8, n.17 ("[E]xtending open Internet rules to any services that do not meet the definition of mass market broadband Internet access could produce harmful results.").

[545] *See, e.g.*, CEA Comments at 11-12 ("There has been no evidence that the specialized services exemption was used to circumvent the open Internet rules when they were in effect, and there is no basis to diverge from the approach the Commission took in 2010."); CenturyLink Comments at 22-23 ("[T]here is no evidence of problems in implementing this exclusion."); AT&T Reply at 110-11.

[546] *See, e.g.*, Jon Peha Comments at 9-10 (stating that without defining "specialized services," the non-BIAS data service exemption can create a loophole that can threaten the open Internet); European Digital Rights Comments at 4 ("Any definition of 'specialised services' must be robust enough to prevent a 'back-door' undermining of net

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ensure that these services are not causing or threatening to cause harm to the open nature of the Internet.[547] Since the *2010 Open Internet Order*, broadband Internet access providers have been required to disclose the impact of non-BIAS data services on the performance of and the capacity available for broadband Internet access services.[548] As discussed in detail above, we will continue to monitor the existence and effects of non-BIAS data services under the broadband providers' transparency obligations.[549]

213. We disagree with commenters who argue that the Commission should adopt a more-detailed definition for non-BIAS data services to safeguard against any such circumvention of the rules.[550] Several commenters provided definitions of what they believe should constitute non-BIAS data services.[551] Others, however, expressed concerns that a formal definition of non-BIAS data services risks potentially limiting future innovation and investment, ultimately negatively impacting consumer welfare.[552] We share these concerns and thus decline to further define what constitutes "non-BIAS data services" or adopt additional policies specific to such services at this time. Again, however, we will closely monitor the development and use of non-BIAS data services and have authority to intervene if these services are utilized in a manner that harms the open Internet.

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neutrality."); Letter from Harold Feld, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 at 24 (filed Dec. 19, 2014) (Public Knowledge Dec. 19, 2014 *Ex Parte* Letter) ("As new services evolve, the Commission must prevent ISPs from using specialized services as an excuse to delay upgrades and extract rents from new innovations."); *see also* Open Internet Advisory Committee, Specialized Services Working Group, Video Set Top Box Case Study Summary, at 6 (2013), http://transition.fcc.gov/cgb/events/Specialized-Services-Set-Top-Box-5-7-13.pdf (noting how particular attributes of a service might characterize it as a non-BIAS data service or a Title VI IP-based cable service depending on the circumstances).

[547] *See, e.g.*, Microsoft Comments at 28 ("[M]onitoring will allow the Commission to respond to any concerns that arise in connection with specific practices without unduly hampering providers' ability to innovate in the provision of specialized services generally.").

[548] *2010 Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56.

[549] *See supra* Section III.C.3.

[550] *See, e.g.*, Access Comments at 10 ("[A] strict definition of specialized services can mitigate the risks."); Future of Music Coalition Reply at 5 ("Without narrow and clear definitions of 'specialized services,' development would slow and artists and the public would be deprived of potentially rewarding technologies."). *But see* CCIA Reply at 18 ("[T]he so-called 'Specialized Services' exemption is cause for concern. CCIA has stated that no reasonable definition of 'Specialized Services' is possible, and that the Commission's resources would be better devoted to locking down the 'reasonable network management' standard as the means by which BIAPs can justify any challenged conduct.").

[551] *See, e.g.*, CDT Comments at 23 ("First, there should be a requirement that the service be truly specialized, in the sense of serving a specific and limited purpose. Second, there should be a technical requirement of logical separation – that is, wholly or significantly separate capacity – between the specialized traffic and the Internet traffic."); Nokia Comments at 12 ("'Specialised services' are designed for specific content, applications, or services, or a combination thereof. Such services rely on traffic management or other networking techniques to ensure the desired or necessary level of network resources that determine subscriber experience (such as capacity, quality) with the aim to securing enhanced quality characteristics. They are delivered from end-to-end and are not marketed as or widely used as a substitute for Internet access service.").

[552] *See*, *e.g.*, ETNO Comments at 4 ("We believe that the FCC chooses a future-proof path by not formally defining 'specialized services.'"); MIT Media Lab Comments at 2-3 ("As long as non-discriminatory Internet access is available, we see no reason to prevent the addition of other specialized, for-fee services. Nor do we see the need to restrict a vibrant market in developing and implementing them."); TIA Comments at 30 ("[S]pecialized services can help to spur investment in broadband facilities," and "[r]egulatory intervention in this nascent area would suppress these innovative enhancements to consumer welfare.").

4. Reasonable Network Management

214. The *2014 Open Internet NPRM* proposed to retain a reasonable network management exception to the conduct-based open Internet rules,[553] following the approach adopted in the *2010 Open Internet Order* that permitted exceptions for "reasonable network management" practices to the no-blocking and no unreasonable discrimination rules.[554] The *2014 Open Internet NPRM* also tentatively concluded that the Commission should retain the definition of reasonable network management adopted as part of the 2010 rules that "[a] network management practice is reasonable if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service."[555]

215. The record broadly supports maintaining an exception for reasonable network management.[556] We agree that a network management exception to the no-blocking rule, the no-throttling rule, and the no-unreasonable interference/disadvantage standard is necessary for broadband providers to optimize overall network performance and maintain a consistent quality experience for consumers while carrying a variety of traffic over their networks.[557] Therefore, the no-blocking rule, the no-throttling rule, and the no-unreasonable interference/disadvantage standard will be subject to reasonable network management for both fixed and mobile providers of broadband Internet access service. In addition to retaining the exception, we retain the definition of reasonable network management with slight modifications:

> *A network management practice is a practice that has a primarily technical network management justification, but does not include other business practices. A network management practice is reasonable if it is primarily used for and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.*

216. For a practice to even be considered under this exception, a broadband Internet access service provider must first show that the practice is primarily motivated by a technical network management justification rather than other business justifications. If a practice is primarily motivated by such an other justification, such as a practice that permits different levels of network access for similarly situated users based solely on the particular plan to which the user has subscribed,[558] then that practice will not be considered under this exception. The term "particular network architecture and technology" refers to the differences across broadband access platforms of any kind, including cable, fiber, DSL,

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[553] *2014 Open Internet NPRM*, 29 FCC Rcd at 5583, para. 61.

[554] 47 C.F.R. § 8.5.

[555] 47 C.F.R. § 8.11(d); *2010 Open Internet Order*, 25 FCC Rcd at 17952, para. 82.

[556] *See, e.g.*, OTI Comments at 57 ("[R]egardless of its source of statutory authority, the Commission should apply its open Internet protections 'subject to reasonable network management.'"); CenturyLink Comments at 23 ("There is also no evidence of a problem with implementing this exception following the Commission's *2010 Open Internet Order*."); CDT Comments at 7.

[557] As discussed above, the transparency rule does not include an exception for reasonable network management. We clarify, however, that the transparency rule "does not require public disclosure of competitively sensitive information or information that would compromise network security or undermine the efficacy of reasonable network management practices." *See 2014 Open Internet NPRM*, 29 FCC Rcd 5583, para. 61; *2010 Open Internet Order*, 25 FCC Rcd at 17937-38, para. 55.

[558] *See* Prepared remarks of FCC Chairman Tom Wheeler, 2014 CTIA Show, Las Vegas, NV (Sept. 9, 2014).

satellite, unlicensed Wi-Fi, fixed wireless, and mobile wireless.[559]

217. As noted above, reasonable network management is an exception to the no-blocking rule, no-throttling rule, and no-unreasonable interference/disadvantage standard, but not to the rule against paid prioritization.[560] This is because unlike conduct implicating the no-blocking, no-throttling, or no-unreasonable interference/disadvantage standard, paid prioritization is not a network management practice because it does not primarily have a technical network management purpose.[561] When considering whether a practice violates the no-blocking rule, no-throttling rule, or no-unreasonable interference/disadvantage standard, the Commission may first evaluate whether a practice falls within the exception for reasonable network management.

218. *Evaluating Network Management Practices*. The *2014 Open Internet NPRM* proposed that the Commission adopt the same approach for determining the scope of network management practices considered to be reasonable as adopted in the *2010 Open Internet Order*.[562] We recognize the need to ensure that the reasonable network management exception will not be used to circumvent the open Internet rules while still allowing broadband providers flexibility to experiment and innovate as they reasonably manage their networks.[563] We therefore elect to maintain a case-by-case approach. The case-by-case review also allows sufficient flexibility to address mobile-specific management practices because, by the terms of our rule, a determination of whether a network management practice is reasonable takes into account the particular network architecture and technology. We also note that our transparency rule

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[559] *See 2010 Open Internet Order*, 25 FCC Rcd at 17952, para. 82 (defining "particular network architecture and technology" as referring to "the differences across access platforms such as cable, DSL, satellite, and fixed wireless").

[560] Paid prioritization would be evaluated under the standards set forth in Section II.C.1.c *supra.*

[561] For purposes of the open Internet rules, prioritization of affiliated content, applications, or services is also considered a form of paid prioritization. *See supra* Section III.C.1.c.

[562] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5583, para. 61. The Commission decided to determine the scope of reasonable network management on a case-by-case basis in the *Open Internet Order* and we maintain those same factors today. *See 2010 Open Internet Order*, 25 FCC Rcd at 17952-56, paras. 84-92.

[563] *See, e.g.*, CDT Comments at 9 ("[R]ules in this area should not be rigid. They should not attempt to specify in advance which particular technical practices should be prohibited or allowed. Detailed technical choices are best left to network operators, since they are in the best position to understand the technical consequences and tradeoffs associated with different choices. Network operators also need appropriate flexibility to devise new tactics and respond to new threats."); CenturyLink Comments at 23 ("The *NPRM* also correctly concludes that the Commission should retain the existing reasonable network management practices exception to its Open Internet rules and continue to develop the scope of that exception on a case-by-case basis. This exception is critical to ensuring that broadband providers have the flexibility to manage their networks in a way that maintains network security and integrity, addresses harmful traffic, and mitigates against the effects of congestion."); ITIF Reply at 14 ("Applying strict neutrality rules, dictating traffic management in the lower layers of a wireless network, is largely unworkable."); TIA Comments at 3 (advocating for "an expansive definition of 'reasonable network management' that reflects the nature and needs of contemporary broadband Networks"); Alcatel-Lucent Comments at 17 ("[T]he Commission should continue to allow reasonable network management practices coupled with disclosure policies that provide consumers with the appropriate level of transparency into these practices."). *But see* CTIA Reply at 26 (noting that it would not be "sufficient to rely on a 'reasonable network management' exception to warrant application of [the no-blocking rule] – as described below, that approach would necessarily chill innovation and harm, not help, consumers").

requires disclosures that provide an important mechanism for monitoring whether providers are inappropriately exploiting the exception for reasonable network management.[564]

219. To provide greater clarity and further inform the Commission's case-by-case analysis, we offer the following guidance regarding legitimate network management purposes. We also note that, similar to the 2010 reasonable network management exception, broadband providers may request a declaratory ruling or an advisory opinion from the Commission before deploying a network management practice, but are not required to do so.[565]

220. As with the network management exception in the *2010 Open Internet Order*, broadband providers may implement network management practices that are primarily used for, and tailored to, ensuring network security and integrity, including by addressing traffic that is harmful to the network, such as traffic that constitutes a denial-of-service attack on specific network infrastructure elements.[566] Likewise, broadband providers may also implement network management practices that are primarily used for, and tailored to, addressing traffic that is unwanted by end users.[567] Further, we reiterate the guidance of the *2010 Open Internet Order* that network management practices that alleviate congestion without regard to the source, destination, content, application, or service are also more likely to be considered reasonable network management practices in the context of this exception.[568] In evaluating congestion management practices, a subset of network management practices, we will also consider whether the practice is triggered only during times of congestion and whether it is based on a user's demand during the period of congestion.[569]

221. We also recognize that some network management practices may have a legitimate network management purpose, but also may be exploited by a broadband provider. We maintain the guidance underlying the *2010 Open Internet Order*'s case-by-case analysis that a network management practice is more likely to be found reasonable if it is transparent, and either allows the end user to control it or is application-agnostic.[570]

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[564] *See supra* Section III.C.3.

[565] *See 2010 Open Internet Order*, 25 FCC Rcd at 17952-53, para. 84, n.262 (citing 47 C.F.R. §1.2 which provides for "a declaratory ruling terminating a controversy or removing uncertainty"); *see also infra* Section III.E.2.a.ii.

[566] *See 2010 Open Internet Order*, 25 FCC Rcd at 17954, para. 88; *see also, e.g.*, Financial Service Roundtable Reply at 3 (stating that the open Internet rules should "allow ISPs to block cyber attacks or similar threats to information systems or networks that are transiting their systems, regardless of the traffic stream's ultimate destination"); EFF Reply at 12 (stating that broadband providers' "blocking content that would actually harm their network (e.g. DDOS attacks) . . . would obviously fall into the category of reasonable network management").

[567] *See 2010 Open Internet Order*, 25 FCC Rcd at 17954-55, paras. 88-90.

[568] *See id.* at 17954, para. 87 (stating that the principles guiding case-by-case evaluations of network management practices include "transparency, end user control, and use- (or application-) agnostic treatment"); *id.* at 17945, para. 73 (elaborating upon the concept of "use-agnostic" discrimination); *see also* Mozilla Reply at 22 (stating that the Commission's conception of reasonable network management could "separate application-specific from application-agnostic discrimination"). As in the no throttling rule and the no unreasonable interference or unreasonable disadvantage standard, we include classes of content, applications, services, or devices.

[569] *See* BITAG Congestion Report at 2, 14.

[570] *2010 Open Internet Order*, 25 FCC Rcd at 17954, para. 87. *See* BITAG Congestion Report at 45 ("User- and application- agnostic congestion management practices are useful in a wide variety of situations, and may be sufficient to accommodate the congestion management needs of network operators in the majority of situations. . . . [and i]f application-based congestion management practices are used, those based on a user's expressed preferences are preferred over those that are not."); David D. Clark, John Wroclawski, Karen R. Sollins, and Robert Braden, *Tussle in Cyberspace: Defining Tomorrow's Internet*, IEEE/ACM Transactions on Networking, vol. 13 no. 3 (2005)

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222. As in 2010, we decline to adopt a more detailed definition of reasonable network management.[571] For example, one proposal suggests that the Commission limit the circumstances in which network management techniques can be used so they would only be reasonable if they were used temporarily, for exceptional circumstances, and have a proportionate impact to solve a targeted problem.[572] We acknowledge the advantages a more detailed definition of network management can have on long-term network investment and transparency, but at this point, there is not a need to place such proscriptive limits on broadband providers.[573] Furthermore, a more detailed definition of reasonable network management risks quickly becoming outdated as technology evolves.[574] Case-by-case analysis will allow the Commission to use the conduct-based rules adopted today to take action against practices that are known to harm consumers without interfering with broadband providers' beneficial network management practices.[575]

223. We believe that the reasonable network management exception provides both fixed and mobile broadband providers sufficient flexibility to manage their networks. We recognize, consistent with the consensus in the record, that the additional challenges involved in mobile broadband network management mean that mobile broadband providers may have a greater need to apply network management practices, including mobile-specific network management practices, and to do so more often to balance supply and demand while accommodating mobility.[576] As the Commission observed in 2010,

("One of the most respected and cited of the Internet design principles is the end-to-end arguments, which state that mechanism should not be placed in the network if it can be placed at the end node, and that the core of the network should provide a general service, not one that is tailored to a specific application.").

[571] *2010 Open Internet Order*, 25 FCC Rcd at 17953, para. 85.

[572] Access Comments at 18 ("Traffic management techniques are 'reasonable' when deployed for the purpose of technical maintenance of the network, namely to block spam, viruses, or denial of service attacks, or to minimize the effects of congestion, whereby equal types of traffic should be treated equally . . . [and] should only be used on a temporary basis, during exceptional moments, and their impact must be necessary, proportionate and targeted to solve the particular problem [and] . . . have transparent and comprehensible disclosure for users . . . .").

[573] MIT Media Lab Comments at 13 ("[A] more stringent view of the limitation of network management . . . insure[s] that there are no artificial or industrially created synthetic control points placed between an application and the flow of bits associated with it."). While some commenters note that there have not been any major technological changes in how broadband providers manage traffic since 2010, others indicate that broadband providers have acquired additional techniques that allow them to manage traffic in real-time. *Compare* Sandvine Comments at 12 (stating that there have not been any big technological changes in how service providers can manage traffic since 2010) *with* Internet Association Comments at 3 ("New technologies have granted broadband Internet access providers an unprecedented ability to discriminate and block content in real time.").

[574] Verizon Dec. 5, 2014 *Ex Parte* Letter at 2.

[575] Beneficial practices include protecting their Internet access services against malicious content or offering a service limited to offering "family friendly" materials to end users who desire only such content. *2010 Open Internet Order*, 25 FCC Rcd at 17954-55, paras. 88-89.

[576] *See, e.g.*, AT&T Reply at 82 ("The unique challenges presented by mobile users and the unpredictable demands placed on mobile networks due to the inherent mobility of their users require a robust set of tools that can be used to mitigate the impact of potential congestion on consumers' experience with a network."); *id.* at 80-83; OTI Comments at 57 ("A flexible approach to defining reasonable network management can accommodate exceptions appropriate to different technologies and platforms …without creating an arbitrary distinction and preference for mobile networks.") (internal quotation marks omitted); T-Mobile Reply at 11 ("These important distinctions between fixed and mobile networks show that it would be inadvisable to impose new net neutrality rules, especially those designed for fixed networks, on mobile broadband networks."); CDT Comments at 20 ("The allowance for reasonable network management provides ample flexibility for carriers to address any network management challenges that are specific to mobile wireless networks, so no broad exemption is warranted."); Microsoft

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mobile network management practices must address dynamic conditions that fixed, wired networks typically do not,[577] such as the changing location of users[578] as well as other factors affecting signal quality.[579] The ability to address these dynamic conditions in mobile network management is especially important given capacity constraints many mobile broadband providers face.[580] Moreover, notwithstanding any limitations on mobile network management practices necessary to protect the open Internet, we anticipate that mobile broadband providers will continue to be able to use a multitude of tools to manage their networks,[581] including an increased number of network management tools available in 4G LTE networks.

224. We note in a similar vein that providers relying on unlicensed Wi-Fi networks have specific network management needs. For example, these providers can "face spectrum constraints and congestion issues that can pose particular network-management challenges" and also "must accept and manage interference from other users in the unlicensed bands."[582] Again, the Commission will take into account when and how network management measures are applied as well as the particular network architecture and technology of the broadband Internet access service in question, in determining if a

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Comments at 27 ("[A]ny technical or operational differences between mobile and fixed networks can be accommodated by recognizing the meaning of 'reasonable network management' might vary depending on the particular type of network."); Public Knowledge Comments at 24 ("[T]o the extent that a technical difference between wireless and wireline exist, reasonable network management policies can accommodate it."); Mozilla Comments at 21 ("There remain technical distinctions between mobile and fixed networks, some of which—such as management of upload congestion—are inherent in the nature of the technologies."); Vonage Comments at 32 ("Rather than adopt less protection, the Commission can instead distinguish between wireline and wireless under the principle of reasonable network management.") TIA Comments at 11-15 (stating that the Commission must consider "the engineering realities of the distinctly different types of broadband platforms [wireline, cable, mobile]" when considering regulations, especially on network management").

[577] *2010 Open Internet Order*, 25 FCC Rcd at 17956, para. 94.

[578] Letter from Scott Bergmann, Vice President—Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, (filed Oct. 6, 2014), Attach., Dr. Jeffrey H. Reed and Dr. Nishith D. Tripathi, *Net Neutrality and Technical Challenges of Mobile Broadband Networks* at 14 (CTIA Oct. 6, 2014 *Ex Parte* Letter) (arguing that as channel conditions degrade (such as when a mobile user moves toward the periphery of a cell site) "[e]ven to preserve a given data rate, the user may need 36 times more radio resources").

[579] *See, e.g.*, TIA Reply at 8 ("The allocation [of radio resources] must factor in the number of active user devices, capabilities of these devices, capabilities of the base station in the area, prevailing channel conditions of different devices on the network, distance from the serving cell, and target QoS of different services to determine the amount of radio resources for individual users."); Nokia Reply at 5 ("Mobile networks can be affected by physical obstructions, solar activity, electromagnetic disturbances, and distance to a much greater degree than wireline broadband networks."); T-Mobile Comments at 5-7.

[580] T-Mobile Comments at 6.

[581] Such tools have been referenced in various *ex parte* filings. *See, e.g.*, Letter from Jonathan Spalter, Chair, Mobile Future, to Marlene H. Dortch, Secretary, FCC, (filed Sept. 12, 2014), Attach., Rysavy Research, How Is Mobile Different: Considerations for the Open Internet Rulemaking at 11-12 (citing the need for adjustments to transmitted power and sustainable data rates); Letter from Scott Bergmann, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, Attach., Dr. Jeffrey H. Reed and Dr. Nishith D. Tripathi, *Net Neutrality and Technical Challenges of Mobile Broadband Networks* at 16, 20-21 (filed Sept. 4, 2014) (citing the need for scheduling user access to the network based upon dynamic measurements of signal quality).

[582] NCTA Dec. 23, 2014 *Ex Parte* Letter at 25; *see also* Letter from Samuel L. Feder, counsel to Cablevision, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Jan. 12, 2015) (urging that the Commission recognize Wi-Fi networks' "specific capacity and congestion constraints" in applying any reasonable network management standard).

network management practice is reasonable. For these reasons, we reject the argument that rules with exceptions only for *reasonable* network management practices would "tie the hands of operators and make it more challenging to meet consumers' needs"[583] or that "the mere threat of *post hoc* regulatory review . . . would disrupt and could chill optimal network management practices."[584] In recognizing the unique challenges, network architecture, and network management of mobile broadband networks (and others, such as unlicensed Wi-Fi networks), we conclude that the reasonable network management exception addresses this concern and strikes an appropriate balance between the need for flexibility and ensuring the Commission has the tools necessary to maintain Internet openness.

E. Enforcement of the Open Internet Rules

1. Background

225. Timely and effective enforcement of the rules we adopt in this Order is crucial to preserving an open Internet, enhancing competition and innovation, and providing clear guidance to consumers and other stakeholders. As has been the case since we adopted our original open Internet rules in 2010, we anticipate that many disputes that will arise can and should be resolved by the parties without Commission involvement. We encourage parties to resolve disputes through informal discussions and private negotiations whenever possible.[585] To the extent disputes are not resolved, the Commission will continue to provide backstop mechanisms to address them. We also will proactively monitor compliance and take strong enforcement action against parties who violate the open Internet rules.

226. In the *2010 Open Internet Order*, the Commission established a two-tiered framework for enforcing open Internet rules. The Commission allowed parties to file informal complaints pursuant to section 1.41 of our rules[586] and promulgated new procedures to govern formal complaints alleging violations of the open Internet rules.[587] This framework was not affected by the D.C. Circuit's decision in *Verizon.* It therefore remains in effect and will apply to complaints regarding the rules we adopt in this Order. Informal complaints provide end users, edge providers, and others with a simple and efficient vehicle for bringing potential open Internet violations to the attention of the Commission.[588] The formal complaint rules permit any person to file a complaint with the Commission alleging an open Internet rule violation and to participate in an adjudicatory proceeding to resolve the complaint.[589] In addition to these mechanisms for resolving open Internet complaints, the Commission continuously monitors press reports and other public information, which may lead the Enforcement Bureau to initiate an investigation of potential open Internet rule violations.

227. In the *2014 Open Internet NPRM*, the Commission sought comment on the efficiency and functionality of the complaint processes adopted in the *2010 Open Internet Order* and on mechanisms we

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[583] Verizon Reply at 33.

[584] AT&T Reply at 89 (emphasis in original).

[585] *2014 Open Internet NPRM*, 29 FCC Rcd at 5618, para. 161; *2010 Open Internet Order*, 25 FCC Rcd at 17986, para. 151.

[586] 47 C.F.R. § 1.41.

[587] 47 C.F.R. §§ 8.12-8.17.

[588] *2010 Open Internet Order*, 25 FCC Rcd at 17986, para. 153. In the *2010 Open Internet Order*, the Commission established that parties could submit informal complaints pursuant to section 1.41 of the Commission's rules\ and recommended that consumers, end users, and edge providers submit such complaints through the Commission's website: http://esupport.fcc.gov/complaints.html. *Id*.

[589] *See 2010 Open Internet Order*, 25 FCC Rcd at 17987-89, paras. 154-59; 47 C.F.R. §§ 8.12-8.17.

should consider to improve enforcement and dispute resolution.[590] We tentatively concluded that our open Internet rules should include at least three fundamental elements: (1) legal certainty, so that broadband providers, edge providers, and end users can plan their activities based on clear Commission guidance; (2) flexibility to consider the totality of the facts in an environment of dynamic innovation; and (3) effective access to dispute resolution.[591] We affirm the importance of these principles below and discuss several enhancements to our existing open Internet complaint rules to advance them. In addition, we adopt changes to our complaint processes to ensure that they are accessible and user-friendly to consumers, small businesses, and other interested parties, as well as changes to ensure that that our review of complaints is inclusive and informed by groups with relevant technical or other expertise.

2. Designing an Effective Enforcement Process

a. Legal Certainty

228. We sought comment in the *2014 Open Internet NPRM* on ways to design an effective enforcement process that provides legal certainty and predictability to the marketplace.[592] In addition to our current complaint resolution framework, we requested input on what other forms of guidance would be helpful.[593] We solicited feedback on whether the Commission should: (1) establish an advisory opinion process, akin to "business review letters" issued by the Department of Justice (DOJ), and/or non-binding staff opinions, through which parties could ask the Commission for a statement of its current enforcement intentions with respect to certain practices under the new rules;[594] and (2) publish enforcement advisories that provide additional insight into the application of the rules.[595] Many commenters recognized the benefits of clear rules and greater predictability regarding open Internet protections.[596]

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[590] *2014 Open Internet NPRM*, 29 FCC Rcd at 5618-23, paras. 161-76.

[591] *Id.* at 5619, para. 163. In addition, the Commission asked whether other elements should be considered and what forms of dispute resolution would be the best strategy to implement "data-driven decision-making." *Id*.

[592] *Id.* at 5619, paras. 163, 165.

[593] *Id.* at 5619, para. 165.

[594] *Id.* at 5619-20, paras. 165-66. The Antitrust Division of the Department of Justice has procedures under which entities concerned about the legality under the antitrust laws of proposed business conduct may seek a statement from the Division regarding its current enforcement intentions with respect to that conduct. *See* 28 C.F.R. § 50.6; Dep't of Justice, *Pilot Program Announced to Expedite Business Review Process* (1992), http://justice.gov/atr/public/busreview/201659a.pdf (Dep't of Justice Business Reviews). Other federal agencies have similar advisory opinion processes. For example, the Rules of Practice of the Federal Trade Commission provide that the Commission or its staff, in appropriate circumstances, may offer industry guidance in the form of an advisory opinion. *See* 16 C.F.R. §§ 1.1-1.4; Fed. Trade Comm'n, *Guidance From Staff of the Bureau of Competition's Health Care Division on Requesting and Obtaining an Advisory Opinion* (2010), http://www.ftc.gov/sites/default/files/attachments/competition-advisory-opinions/advop-health.pdf.

[595] *2014 Open Internet NPRM*, 29 FCC Rcd at 5620, para. 167.

[596] *See, e.g.*, Comcast Comments at 67 ("Comcast agrees with the Commission that any new enforcement procedures must 'provide legal certainty . . . .'"); NCTA Comments at 67 ("The Commission . . . should continue to explore other ways of streamlining its enforcement procedures in a manner that provides 'legal certainty' to regulated entities."); EFF Comments at 2 (The Commission "should enact clear and simple prescriptive rules . . . ."); Independent Film & Television Alliance Comments at 12 ("[T]he Commission must take the most effective actions available to it to ensure that the regulations it adopts . . . provide certainty to the public."); Cox Comments at ii-iii ("In relying on traditional complaint-driven and agency-initiated enforcement mechanisms, the Commission's rules also should maximize certainty and ensure options for streamlined dispute resolution.").

(i) Advisory Opinions

229. We conclude that use of advisory opinions similar to those issued by DOJ's Antitrust Division is in the public interest and would advance the Commission's goal of providing legal certainty.[597] Although the Commission historically has not used advisory opinions to promote compliance with our rules, we conclude that they have the potential to serve as useful tools to provide clarity, guidance, and predictability concerning the open Internet rules.[598] Advisory opinions will enable companies to seek guidance on the propriety of certain open Internet practices before implementing them, enabling them to be proactive about compliance and avoid enforcement actions later.[599] The Commission may use advisory opinions to explain how it will evaluate certain types of behavior and the factors that will be considered in determining whether open Internet violations have occurred. Because these opinions will be publicly available, we believe that they will reduce the number of disputes by providing guidance to the industry.

230. In this Order, we adopt rules promulgating basic requirements for obtaining advisory opinions, as well as limitations on their issuance. Any entity that is subject to the Commission's jurisdiction may request an advisory opinion regarding its own proposed conduct that may implicate the rules we adopt in this Order, the rules that remain in effect from the *2010 Open Internet Order*, or any other rules or policies related to the open Internet that may be adopted in the future.[600]

231. Requests for advisory opinions may be filed via the Commission's website or with the Office of the Secretary and must be copied to the Commission staff specified in the rules.[601] We delegate authority to issue advisory opinions to the Enforcement Bureau, which will coordinate with other Bureaus and Offices on the issuance of opinions. The Enforcement Bureau will have discretion to choose whether it will respond to the request. If the Bureau declines to respond to a request, it will inform the requesting party in writing. As a general matter, the Bureau will be more likely to respond to requests where the proposed conduct involves a substantial question of fact or law and there is no clear Commission or court precedent, or the subject matter of the request and consequent publication of Commission advice is of significant public interest.[602] In addition, the Bureau will decline to respond to requests if the same conduct is the subject of a current government investigation or proceeding, including any ongoing

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[597] We decline to adopt non-binding staff opinions in light of our decision to establish an advisory opinion process similar to the DOJ Antitrust Division's business review letter approach, as well as existing voluntary mediation processes to resolve open Internet disputes that are available through the Enforcement Bureau's Market Disputes and Resolutions Division. *See infra* Section III.E.2.a.i.

[598] Parties also have the option to file a petition for declaratory ruling under section 1.2 of the Commission's rules, 47 C.F.R. § 1.2. In contrast to declaratory rulings, advisory opinions may only relate to prospective conduct, and the Enforcement Bureau will not seek comment on advisory opinions via public notice. *See id*.

[599] *See*, *e.g.*, Dep't of Justice, *Introduction to Antitrust Division Business Reviews* at 1 (last visited Oct. 29, 2014), http://www.justice.gov/atr/public/busreview/276833.pdf ("The business review procedure benefits both the Division and the business community because the Division can analyze and comment on the possible competitive impact of proposed business conduct, possibly avoiding lawsuits or other actions.").

[600] *See, e.g.*, 28 C.F.R. § 50.6(2) ("The [DOJ's Antitrust] Division will consider only requests with respect to proposed business conduct, which may involve either domestic or foreign commerce.").

[601] *See infra* Appx. A (§ 8.18).

[602] As noted above, in addition to DOJ, other federal agencies also have an advisory opinion process. *See supra* note 594. The FTC specifies that it will consider requests for advisory opinions, where practicable, under the following circumstances: "(1) The matter involves a substantial or novel question of fact or law and there is no clear Commission or court precedent; or (2) The subject matter of the request and consequent publication of Commission advice is of significant public interest." 16 C.F.R. § 1.1(a).

litigation or open rulemaking.[603]

232. Requests for advisory opinions must relate to *prospective* or proposed conduct that the requesting party intends to pursue.[604] The Enforcement Bureau will not respond to hypothetical questions or inquiries about proposals that are mere possibilities. The Bureau also will not respond to requests for opinions that relate to ongoing or prior conduct, and the Bureau may initiate an enforcement investigation to determine whether such conduct violates the open Internet rules.

233. Requests for advisory opinions should include all material information sufficient for Commission staff to make a determination on the proposed conduct;[605] however, staff will have discretion to ask parties requesting opinions, as well as other parties that may have information relevant to the request or that may be impacted by the proposed conduct, for additional information that the staff deems necessary to respond to the request.[606] Because advisory opinions will rely on full and truthful disclosures by the requesting entities, requesters must certify that factual representations made to the Enforcement Bureau are truthful and accurate, and that they have not intentionally omitted any material information from the request.[607] Advisory opinions will expressly state that they rely on the representations made by the requesting party, and that they are premised on the specific facts and representations in the request and any supplemental submissions.

234. Although the Enforcement Bureau will attempt to respond to requests for advisory opinions expeditiously, we decline to establish any firm deadlines to rule on them or issue response letters.[608] The Commission appreciates that if the advisory opinion process is not timely, it will be less valuable to interested parties. However, response times will likely vary based on numerous factors, including the nature and complexity of the issues, the magnitude and sufficiency of the request and the supporting information, and the time it takes for the requester to respond to staff requests for additional information. An advisory opinion will provide the Enforcement Bureau's conclusion regarding whether or not the proposed conduct will comply with the open Internet rules. The Bureau will have discretion to indicate in an advisory opinion that it does not intend to take enforcement action based on the facts, representations, and warranties made by the requesting party. The requesting party may rely on the opinion only to the extent that the request fully and accurately contains all the material facts and representations necessary for the opinion and the situation conforms to the situation described in the

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[603] *See, e.g.*, 16 C.F.R. § 1.1(b)(1) (the FTC will ordinarily consider requests for advisory opinions inappropriate where "[t]he same or substantially the same course of action is under investigation or is or has been the subject of a current proceeding involving the Commission or another governmental agency . . . .").

[604] *See, e.g.*, 28 C.F.R. § 50.6(2) ("The [DOJ's Antitrust] Division will consider only requests with respect to *proposed* business conduct . . . .") (emphasis added); 16 C.F.R. § 1.1(a) ("Any person, partnership, or corporation may request advice from the [Federal Trade] Commission with respect to a course of action which the requesting party proposes to pursue.").

[605] *See, e.g.*, 28 C.F.R. § 50.6(5) (under the DOJ's business review procedures, "[e]ach request must be accompanied by all relevant data including background information, complete copies of all operative documents and detailed statements of all collateral oral understandings, if any").

[606] *See, e.g.*, *id.* ("All parties requesting the review letter must provide the [DOJ Antitrust] Division with whatever additional information or documents the Division may thereafter request in order to review the matter. . . . In connection with any request for review, the Division will also conduct whatever independent investigation it believes is appropriate.").

[607] *See* 18 U.S.C. § 1001; *see also* 47 C.F.R. § 1.17.

[608] For example, the Department of Justice's Antitrust Division states that it will "make its best effort" to resolve business review requests within 60 to 90 days after receiving all relevant information and documents sought by the Division. *See* Dep't of Justice Business Reviews at 1-2.

request for opinion. The Enforcement Bureau will not bring an enforcement action against a requesting party with respect to any action taken in good faith reliance upon an advisory opinion if all of the relevant facts were fully, completely, and accurately presented to the Bureau, and where such action was promptly discontinued upon notification of rescission or revocation of the Commission's or the Bureau's approval.[609]

235. Advisory opinions will be issued without prejudice to the Enforcement Bureau's ability to reconsider the questions involved, or to rescind or revoke the opinion.[610] Similarly, because advisory opinions issued at the staff level are not formally approved by the full Commission, they will be issued without prejudice to the Commission's right to later rescind the findings in the opinion. Because advisory opinions will address proposed future conduct, they necessarily will not concern any case or controversy that is ripe for appeal.[611]

236. The Enforcement Bureau will make advisory opinions available to the public. In order to provide meaningful guidance to other stakeholders, the Bureau will also publish the initial request for guidance and any associated materials. Thus, the rules that we adopt establish procedures for entities soliciting advisory opinions to request confidential treatment of certain information.[612]

237. Many commenters support the use of advisory opinions as a means for the Commission to provide authoritative guidance to parties about the application of open Internet rules and the Commission's enforcement intentions.[613] In addition, some commenters suggest that review letters and

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[609] *See* 16 C.F.R. § 1.3(b); *see also* 28 C.F.R. § 50.6(9) ("A business review letter states only the enforcement intention of the [DOJ Antitrust] Division as of the date of the letter, and the Division remains completely free to bring whatever action or proceeding it subsequently comes to believe is required by the public interest. As to a stated present intention not to bring an action, however, the Division has never exercised its right to bring a criminal action where there has been full and true disclosure at the time of presenting the request.").

[610] *See, e.g.*, 28 C.F.R. § 50.6(9) ("A business review letter states only the enforcement intention of the [DOJ's Antitrust] Division as of the date of the letter, and the Division remains completely free to bring whatever action or proceeding it subsequently comes to believe is required by the public interest."); 16 C.F.R. § 1.3(b) ("Any advice given by the [Federal Trade] Commission is without prejudice to the right of the Commission to reconsider the questions involved and, where the public interest requires, to rescind or revoke the action.").

[611] *See, e.g.*, *American Exp. Co. v. U.S. Dep't of Justice*, 453 F. Supp. 47, 50 (S.D.N.Y. 1978) ("[28 C.F.R. § 50.6], by committing the Justice Department to state a position with respect to future enforcement plans, necessarily implies that the matter under review is not the subject of any currently pending enforcement proceedings. Rather, the opinion of the Justice Department is an 'advisory opinion,' a familiar term used in the legal lexicon to denote an opinion concerning a matter not yet ripe for judicial action and thus not yet before any court.").

[612] For example, trade secrets or commercial and financial information may merit confidential treatment. *See* 47 C.F.R. §§ 0.457, 0.459.

[613] *See, e.g.*, Comcast Comments at 69 ("Comcast . . . remains open to other potential mechanisms for providing guidance—such as a business-review-letter process, nonbinding staff opinions, or enforcement advisories."); NCTA Comments at 67 (Less formal mechanisms of providing clarity on the Commission's view of the law, including business review letters, non-binding staff opinions, or enforcement advisories "may well prove useful to regulated entities as they endeavor to comply with any new rules . . . ."); CDT Comments at 34 ("To facilitate the development of helpful guidance in the interpretation of the rules, the Commission should proceed with its suggestion in the NPRM to establish a business-review-letter approach similar to that of the Antitrust Division of the Department of Justice. Such a process would provide a way for individual companies to resolve uncertainty they may face under the rules, while accelerating the growth of a body of precedent to which other industry participants might look. It could also foster useful discussions between broadband providers and Commission staff and a more regular and informed consideration of open-Internet policy issues.") (internal citations omitted); Cox Comments at 29 ("Cox . . . supports the NPRM's proposal to adopt additional dispute resolution mechanisms, such as expedited,

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staff opinions should be voluntary.[614] We agree that solicitation of advisory opinions should be purely voluntary, and that failure to seek such an opinion will not be used as evidence that an entity's practices are inconsistent with our rules.

238. The Wireless Internet Service Providers Association (WISPA) opposes the adoption of an advisory opinion process "because it assumes an inherent uncertainty in the rules and creates a 'mother may I' regime —essentially creating a system where a broadband provider must ask the Commission for permission when making business decisions."[615] According to WISPA, "[t]his system would increase regulatory uncertainty and stifle broadband providers from innovating new technologies or business methods. It also would be expensive for a small provider to implement, requiring legal and professional expertise."[616]

239. We find that WISPA's concerns are misguided. Because requests for advisory opinions will be entirely voluntary, we disagree with the contention that their use would force broadband providers to seek permission before implementing new policies or technologies and thereby stifle innovation.[617] In addition, we agree with other commenters that advisory opinions would provide more, not less, certainty regarding the legality of proposed business practices.[618]

(ii) Enforcement Advisories

240. We conclude that the periodic publication of enforcement advisories will advance the Commission's goal of promoting legal certainty regarding the open Internet rules.[619] In the *2014 Open Internet NPRM*, we inquired whether the Commission should issue guidance in the form of enforcement advisories that provide insight into the application of Commission rules.[620] Enforcement advisories are a tool that the Commission has used in numerous contexts, including the current open Internet rules.[621] We asked whether continued use of such advisories would be helpful where issues of potential general

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non-binding staff review informed by input from the Broadband Internet Technical Advisory Group ('BITAG') and/or resolution by technical advisory groups like OIAC and BITAG.").

[614] *See, e.g.*, CDT Comments at 33-34 ("[U]se of the business-review-letter process should be purely voluntary. There should be no expectation that broadband providers must seek permission from the Commission before changing or instituting new network management practices, and the decision by a broadband provider not to seek a business review letter should not result in any negative inference regarding the provider or its practices.").

[615] WISPA Comments at 33; *see also* ADTRAN Comments at ii ("[T]he proposed enforcement processes will exacerbate the uncertainty, delay deployment of new services and further deter investment. The use of case-by-case formal complaint procedures to develop a 'common law' of Internet regulation under the vague rules proposed in the NPRM will not timely provide any measure of certainty or guidance. And the alternative proposals present concerns about timeliness, protection of proprietary information, no real measure of certainty and inconsistency with the current limits on delegated authority."); *id*. at 33-41.

[616] WISPA Comments at 33.

[617] *Id.* at 33-34.

[618] *See supra* note 613.

[619] Since January 2010, the Enforcement Bureau has periodically published enforcement advisories "designed to educate businesses about and alert consumers to what's required by FCC rules, the purpose of those rules and why they're important to consumers, as well as the consequences of failures to comply." *Statement of P. Michele Ellison, Chief, Enforcement Bureau on Issuance of the Bureau's First Enforcement Advisories*, News Release (January 15, 2010), https://apps.fcc.gov/edocs_public/attachmatch/DOC-295749A1.pdf.

[620] *2014 Open Internet NPRM*, 29 FCC Rcd at 5620, para. 167.

[621] *See 2014 Advisory Guidance*, 29 FCC Rcd 8606; *2011 Advisory Guidance*, 26 FCC Rcd 9411.

application come to the Commission's attention, and whether these advisories should be considered binding policy of the Commission or merely a recitation of staff views.[622]

241. Numerous commenters maintain that the Commission should continue to use enforcement advisories to offer clarity, guidance, and predictability concerning the open Internet rules.[623] We agree. Enforcement advisories do not create new policies, but rather are recitations and reminders of existing legal standards and the Commission's current enforcement intentions.[624] We see no need to deviate from our current practice of issuing such advisories to periodically remind parties about legal standards regarding the open Internet rules.

b. Flexibility

(i) Means of enforcement and general enforcement mechanisms

242. We will preserve the Commission's existing avenues for enforcement of open Internet rules—self-initiated investigation by the Enforcement Bureau, informal complaints, and formal complaints. Commenters agree with the value of retaining these three main mechanisms for commencing enforcement of potential open Internet violations, as this combination ensures multiple entry points to the Commission's processes and gives both complainants and the Commission enforcement flexibility.[625]

243. In addition, the Commission will continue to honor requests for informal complaints to remain anonymous, and will also continue to maintain flexible channels for reporting suspected violations, like confidential calls to the Enforcement Bureau. Although some commenters raise concerns about anonymous complaint filings,[626] others stress the importance of having the option to request anonymity when filing an informal complaint.[627] We note, however, that complainants who are not anonymous frequently have better success getting their concerns addressed because the service provider can then troubleshoot their specific concerns.[628]

244. We also adopt our tentative conclusion in the *2014 Open Internet NPRM* that enforcement of the transparency rule should proceed under the same dispute mechanisms that apply to other rules contained in this Order.[629] We believe that providing both complainants and the Commission with flexibility to address violations of the transparency rule will continue to be important and that the

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[622] *2014 Open Internet NPRM*, 29 FCC Rcd at 5620, para. 167.

[623] *See, e.g.*, Comcast Comments at 69; NCTA Comments at 67.

[624] WISPA maintains that "any enforcement advisories should not be created in a vacuum and must be based on a public record following an opportunity for interested consumers and industry parties to submit comments." WISPA Comments at 34. We disagree with the contention that public notice and comment should be a prerequisite for the Commission to issue an enforcement advisory. The Commission uses its rulemaking procedures when we are adopting rule changes that require notice and comment. Conversely, enforcement advisories are used to remind parties of existing legal standards.

[625] *See, e.g.*, ADT Comments at 10-11; CenturyLink Comments at 36; Comcast Comments at 67; Hochhalter Comments at 34 ("Informal and formal complaint processes alike should be utilized. Both end users and edge providers can further enforcement efforts th[r]ough this process, and substantially lighten the FCC's enforcement burden.").

[626] *See, e.g.*, Charter Comments at 34–35; NCTA Comments at 68.

[627] *See, e.g.*, Hochhalter Comments at 34–35.

[628] *See, e.g.*, Comcast Comments at 68.

[629] Commenters generally agree with this approach and have not offered any basis for the Commission to pursue a different enforcement regime with respect to the transparency rule. *See, e.g.*, ADT Comments at 11.

best means to ensure compliance with both the transparency rule and the other rules we adopt today is to apply a uniform and consistent enforcement approach.

245. Finally, we conclude that violations of the open Internet rules will be subject to any and all penalties authorized under the Communications Act and rules,[630] including but not limited to admonishments, citations,[631] notices of violation,[632] notices of apparent liability,[633] monetary forfeitures and refunds,[634] cease and desist orders,[635] revocations,[636] and referrals for criminal prosecution.[637] Moreover, negotiated Consent Decrees can contain damages, restitution, compliance requirements, attorneys' fees, declaratory relief, and equitable remedies like injunctions, equitable rescissions, reformations, and specific performance.[638]

(ii) Case-by-Case Analysis

246. The *2014 Open Internet NPRM* emphasized that the process for providing and promoting an open Internet must be flexible enough to accommodate the ongoing evolution of Internet technology. We therefore tentatively concluded that the Commission should continue to use a case-by-case approach, taking into account the totality of the circumstances, in considering alleged violations of the open Internet rules.

247. We affirm our proposal to continue to analyze open Internet complaints on a case-by-case basis.[639] We agree with commenters that flexible rules, administered through case-by-case analysis, will

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[630] Section 706 was enacted as part of the 1996 Telecommunications Act, and it is therefore subject to any and all penalties under the Act and our rules. *See Verizon*, 740 F.3d at 650 ("Congress expressly directed that the 1996 Act . . . be inserted into the Communications Act of 1934.") (quoting *AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366, 377 (1999)).

[631] 47 U.S.C. § 503(b)(5).

[632] 47 C.F.R. § 1.89.

[633] 47 U.S.C. § 503(b)(4).

[634] 47 U.S.C. § 503(b).

[635] 47 U.S.C. § 312(b).

[636] 47 C.F.R. § 1.91.

[637] 47 U.S.C. § 501.

[638] We are aware of concerns expressed by some commenters that penalties need to be predictable and fair. *See, e.g.*, WISPA Comments at 37 ("The existing rules lack any recitation of the range of sanctions or financial penalties that the Commission is authorized to impose upon a finding of a rule violation."). The Commission views its processes as ensuring predictable and fair enforcement. All forfeiture orders over $25,000 are reviewed by the full Commission for disposition, and all past enforcement actions are publicly available for guidance.

[639] A number of commenters support this approach. *See, e.g.*, TIA Comments at 3, 21; CenturyLink Comments at 35-36; CWA & NAACP Comments at 19-20; Verizon Comments, Attach. Katz Declaration at 24 ("Because no one has the ability to predict what will be the best network management practices and pricing and service models in the future, it is important that the Commission's rule be flexible" and a "case-by-case (or rule-of-reason) approach can offer that flexibility."); Comcast Comments at 67. One commenter argues that the Commission should promulgate general rules of conduct rather than relying on case-by-case adjudications. PA PUC Comments at Appx. B, 11. Other commenters expressed concerns about the cost of case-by-case adjudication. *See, e.g.*, Future of Music Coalition Comments at 3; Meetup Comments at 7. We reject the suggestion that the Commission promulgate additional rules of conduct because it is unrealistic to expect that in this varied and rapidly evolving technological environment the agency will be able to anticipate the specific conduct that will give rise to future disputes. As for concerns about the cost of adjudications, as discussed below, we stress that our procedures will allow the

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enable us to pursue meaningful enforcement, consider consumers' individual concerns, and account for rapidly changing technology.[640]

(iii) Fact-finding processes

248. In the *2014 Open Internet NPRM*, we sought comment about how to most effectively structure a flexible fact finding process in analyzing open Internet complaints. We asked what level of evidence should be required in order to bring a claim. With regard to formal complaint proceedings, we also asked what showing should be required for the burden of production to shift from the party bringing the claim to the defendant, as well as whether parties could seek expedited treatment.[641]

249. *Informal Complaints*. Our current rules permitting the filing of informal complaints include a simple and straightforward evidentiary standard. Under section 1.41 of our rules, "[r]equests should set forth clearly and concisely the facts relied upon, the relief sought, the statutory and/or regulatory provisions (if any) pursuant to which the request is filed and under which relief is sought, and the interest of the person submitting the request."[642] Although our rules do not establish any specific pleading requirements for informal complaints, parties filing them should attempt to provide the Commission with sufficient information and specific facts that, if proven true, would constitute a violation of the open Internet rules.

250. We find that our existing informal complaint rule offers an accessible and effective mechanism for parties—including consumers and small businesses with limited resources—to report possible noncompliance with our open Internet rules without being subject to burdensome evidentiary or pleading requirements. We conclude that there is no basis in the record for modifying the existing standard and decline to do so.

251. *Formal Complaints*. Our current open Internet formal complaint rules provide broad flexibility to adapt to the myriad potential factual situations that might arise. For example, as noted in the *2010 Open Internet Order*, some cases can be resolved based on the pleadings if the complaint and answer contain sufficient factual material to decide the case. A simple case could thus be adjudicated in an efficient, streamlined manner. For more complex matters, the existing rules give the Commission discretion to require other procedures, including discovery, briefing, a status conference, oral argument, an evidentiary hearing, or referral to an administrative law judge (ALJ).[643] Similarly, the rules provide the Commission discretion to grant temporary relief where appropriate.[644]

252. In addition, our open Internet formal complaint process already contemplates burden shifting.[645] Generally, complainants bear the burden of proof and must demonstrate by a preponderance of the evidence that an alleged violation has occurred. A complainant must plead with specificity the

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Commission to simplify and streamline the complaint process, and to shift the burden of production, where appropriate, in order to minimize the time and expense of complaint proceedings.

[640] TIA Comments at 3, 21. *See also* CenturyLink Comments at 36 ("[T]he 'commercially reasonable' nondiscrimination framework proposed in the *NPRM* ultimately relies heavily on the backstop of a rigorous *ex post* process for reviewing and evaluating challenges to given practices on a case-by-case basis. A strong reliance on such a backstop, as opposed to overly prescriptive rules, is the better policy approach.") (internal citations omitted).

[641] *2014 Open Internet NPRM*, 29 FCC Rcd at 5621, para. 169.

[642] 47 C.F.R. § 1.41.

[643] 47 C.F.R. § 8.14(e)-(g*); see also 2010 Open Internet Order*, 25 FCC Rcd at 17987–88, para. 156 & n.490.

[644] *See* 47 C.F.R. § 8.14(e)(1).

[645] As we noted in the *2010 Open Internet Order*, our current processes permit the Commission to shift the burden of production where appropriate. *See 2010 Open Internet Order*, 25 FCC Rcd at 17988, para. 157.

basis of its claim and provide facts and documentation, when possible, to establish a *prima facie* rule violation.[646] Defendants must answer each claim with particularity and furnish facts, supported by documentation or affidavit, demonstrating that the challenged practice complies with our rules. Defendants do not have the option of merely pointing out that the complainant has failed to meet his or her burden; they must show that they are in compliance with the rules. The complainant then has an opportunity to respond to the defendant's submission.[647] We retain our authority to shift the burden of production when, for example, the evidence necessary to assess the alleged unlawful practice is predominately in the possession of the broadband provider.[648] If a complaining party believes the burden of production should shift, it should explain why in the complaint. Complainants also must clearly state the relief requested.[649] We conclude that we should retain our existing open Internet procedural rules and that all formal complaints that relate to open Internet disputes, including Internet traffic exchange disputes, will be subject to those rules.[650] Although comparable to the section 208 formal complaint rules,[651] the open Internet rules are less burdensome on complainants, who in this context are likely to be consumers or small edge providers with limited resources.[652] Moreover, as described above, the open Internet procedural rules allow the Commission broader flexibility in tailoring proceedings to fit particular cases.[653]

253. Several commenters stress the need for speedy resolution of complaints, given the rapid pace of Internet commerce and the potential consumer harms and market chilling effects deriving from slow resolution.[654] While we share these concerns, we decline to adopt fixed, short deadlines for resolving formal complaints but pledge to move expeditiously. As noted in the *2010 Open Internet Order*, the Commission may shorten deadlines or otherwise revise procedures to expedite the adjudication of complaints.[655] Additionally, the Commission will determine, on the basis of the evidence before it,

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[646] *Id.* at 17988, para. 157 & n.491.

[647] *Id.* at 17988, para. 157.

[648] *See id.*; *see also* Consumers Union Comments at 8 (arguing that users and edge providers "may not always be aware of all of the circumstances surrounding a particular practice or negotiation").

[649] 47 C.F.R. § 8.14(a)(2)(i).

[650] *See* 47 C.F.R. §§ 8.12-17.

[651] *See* 47 C.F.R. §§ 1.720-1.736.

[652] The section 208 rules, for example, require complainants to submit information designations, proposed findings of fact and conclusions of law, and affidavits demonstrating the basis for complainant's belief for unsupported allegations and why complainant could not ascertain facts from any source. *See, e.g.*, 47 C.F.R. §§ 1.721(a) (5), (6), (10). The open Internet formal complaint rules do not contain similar requirements.

[653] *See supra* Section III.E.2.b. For example, under the open Internet rules, the Commission may order an evidentiary hearing before an administrative law judge (ALJ) or Commission staff. *See* 47 C.F.R. §§ 8.14(e)(1), (g). The section 208 rules contain no such provision. In addition, unlike the section 208 rules, the open Internet rules do not contain numerical limits on discovery requests. *Compare id.* § 8.14(f) *with id.* § 1.729(a).

[654] *See, e.g.*, CFA Comments at 5; Cox Comments at 29; MMTC Comments at 12; WISPA comments at 37 ("[U]nless further information is required, the Commission should render a decision on any complaint within 60 days of the filing of the answer or any required supplemental information"); *cf.* COMPTEL Comments at 33-34 (proposing an expedited review process for informal complaints alleging violations of the Commission's open Internet rules requiring complaints to be resolved in 90 days to "provide the necessary legal certainty for broadband providers, end users and edge providers to better plan their activities in light of clear Commission guidance").

[655] *2010 Open Internet Order*, 25 FCC Rcd at 17988, para. 158, n.494. Further, the rules permit parties to formal complaint proceedings to request expedited treatment under the Enforcement Bureau's Accelerated Docket procedures. *See* 47 C.F.R. § 8.13(a)(7).

whether temporary relief should be afforded any party pending final resolution of a complaint and, if so, the nature of any such temporary relief.[656] As noted above, some open Internet cases may be straightforward and suitable for decision in a 60 to 90-day timeframe. Other cases may be more factually and technologically complex, requiring more time for the parties to pursue discovery and build an adequate record, and sufficient time for the Commission to make a reasoned decision. Therefore, we find that the existing process—allowing parties to request expedited treatment—best fits the needs of potential open Internet formal complaints.

c. Effective Access to Dispute Resolution

254. In this section, we adopt the proposal from the *2014 Open Internet NPRM* to establish an ombudsperson to assist consumers, businesses, and organizations with open Internet complaints and questions by ensuring these parties have effective access to the Commission's processes that protect their interests.[657] The record filed supports our conclusion that these parties would benefit from having an ombudsperson as a point of contact within the Commission for questions and complaints.[658]

255. Comments in support of the establishment of an ombudsperson clearly demonstrate the range of groups a dedicated ombudsperson can serve. For example, the American Association of People with Disabilities expressed particular interest in the potential of the ombudsperson to monitor concerns regarding accessibility and the open Internet.[659] In addition, the comments of Higher Education Libraries asked that libraries be amongst the groups served by the ombudsperson[660] and those of the Alaska Rural Coalition expressed interest in the ombudsperson also being accessible to small carriers with concerns.[661] In contrast, some commenters expressed concerns about the creation of a dedicated ombudsperson.[662] However, as described below, the ombudsperson will work as a point of contact and a source of assistance as needed, not as an advocate or as an officer who must be approached for approval, addressing many of these concerns.

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[656] *See* 47 C.F.R. § 8.14(e)(1). The Supreme Court has affirmed the Commission's authority to impose interim injunctive relief pursuant to section 4(i) of the Act. *See United States v. Southwestern Cable Co.*, 392 U.S. 157, 180–181 (1968); *see also* 47 U.S.C. § 154(i) ("The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions."); *Implementation of the Telecommunications Act of 1996; Amendment of Rules Governing Procedures to Be Followed When Formal Complaints Are Filed Against Common Carriers*, CC Docket No. 96-238, Report and Order, 12 FCC Rcd 22497, 22566, para. 159 & n.464 (1997) (stating that the Commission has authority under section 4(i) of the Act to award injunctive relief).

[657] *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5621, at para. 171.

[658] *See, e.g.*, American Association of People with Disabilities Comments at 5 (noting that an ombudsperson would allow the commission to better serve the needs of people with disabilities); COMPTEL Comments at 34 (stating support for the creation of an ombudsperson); Higher Education Libraries Comments at 20 (advocating for the inclusion of libraries in the list of groups the ombudsperson would serve); Hurwitz Comments at 4 ("The NPRM considers the creation of an ombudsperson; this proposal should be firmly embraced."); MMTC Comments at 12 (asking that the ombudsperson serve consumers, including individuals from vulnerable populations).

[659] American Association of People with Disabilities Comments at 5.

[660] Higher Education Libraries Comments at 20.

[661] Alaska Rural Coalition Comments at 17; *see also* WISPA Comments at 34 (supporting the creation of an ombudsman only if they are authorized to act on behalf of small carriers as well as consumers and edge providers).

[662] *See, e.g.*, Common Cause Comments at 11 (expressing concerns about the necessity of receiving pre-clearance by an ombudsperson); Kickstarter Comments at 2 (stating that working with an ombudsperson would be onerous); T-Mobile Comments at 26 (stating that there has been no showing of need to create an ombudsperson).

256. The Open Internet Ombudsperson will serve as a point of contact to provide assistance to individuals and organizations with questions or complaints regarding the open Internet to ensure that small and often unrepresented groups reach the appropriate bureaus and offices to address specific issues of concern. For example, the ombudsperson will be able to provide initial assistance with the Commission's dispute resolution procedures by directing such parties to the appropriate templates for formal and informal complaints. We expect the ombudsperson will assist interested parties in less direct but equally important ways. These could include conducting trend analysis of open Internet complaints and, more broadly, market conditions, that could be summarized in reports to the Commission regarding how the market is functioning for various stakeholders. The ombudsperson may investigate and bring attention to open Internet concerns, and refer matters to the Enforcement Bureau for potential further investigation. The ombudsperson will be housed in the Consumer & Governmental Affairs Bureau, which will remain the initial informal complaint intake point, and will coordinate with other bureaus and offices, as appropriate, to facilitate review of inquiries and complaints regarding broadband services.

3. Complaint Processes and Forms of Dispute Resolution

a. Complaint Filing Procedures

257. In the *2014 Open Internet NPRM*, we sought comment on how open Internet complaints should be received, processed, and enforced. We asked if there were ways to improve access to our existing informal and formal complaint processes, especially for consumers, small businesses, and other entities with limited resources and knowledge of how our complaint processes work. We also asked whether the current enforcement and dispute resolution tools at the Commission's disposal are sufficient for resolving violations of open Internet rules.

258. *Informal Complaints*. First, we will implement processes to make it easier to lodge informal open Internet complaints, including a new, more intuitive online complaint interface.[663] The Commission recently launched a new Consumer Help Center, which provides a user-friendly, streamlined means to access educational materials on consumer issues and to file complaints. Consumers who seek to file an open Internet complaint should visit the Consumer Help Center portal and click the Internet icon for the materials or the online intake system for complaints. The complaint intake system is designed to guide the consumer efficiently through the questions that need to be answered in order to file a complaint. The Consumer Help Center will make available aggregate data about complaints received, including those pertaining to open Internet issues. Some data is currently available, with additional and more granular data to be provided over time.[664] We believe these efforts will improve access to the Commission's open Internet complaint processes.[665]

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[663] *See* MMTC Comments at 14 ("As a general matter, the Commission's primary focus should be to create a user-friendly form that easily can be completed and submitted by a consumer without the need for an attorney.").

[664] The Open Internet Ombudsperson will also be available to assist parties in filing informal complaints. *See supra* Section III.E.2.c.

[665] The MMTC proposed applying, in the open Internet context, the Equal Employment Opportunity Commission (EEOC) complaint process set out in Title VII of the Civil Rights Act of 1964, as a way to "provide an excellent consumer-friendly means of resolving open Internet complaints rapidly, efficiently, and affordably." Letter from David Honig, MMTC to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 09-51, 14-28, 09-191, MB Docket Nos. 14-109, 14-50, 09-182, 07-294, 04-256, Attach. at 6 (filed Dec. 12, 2014) (MMTC *Ex Parte* Letter); *see also* MMTC Comments at 13. Under that process, complainants, prior to seeking formal relief against a party, must submit their complaint to the EEOC, which reviews and attempts informal resolution, with subsequent formal complaints only authorized (by a "Right to Sue letter") if informal resolution is not reached. We agree that the Title VII complaint process has benefits, including free-to-the-complainant complaint review and mediation and sequencing that encourages informal dispute resolution prior to formal lawsuits, among others. MMTC *Ex Parte* Letter Attach. at 2. We believe the Commission's existing multimodal open Internet complaint processes contain

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259. *Formal Complaints*. With respect to formal complaints, we amend the Commission's Part 8 open Internet rules[666] to require electronic filing of all pleadings in open Internet formal complaint proceedings. Currently, parties to such proceedings must file hard copies of pleadings with the Office of the Secretary. This process is time-consuming for the parties and makes it difficult for the public to track case developments. Although members of the public may obtain copies of the pleadings from the Commission's Reference Information Center, there is no way to search for or view pleadings electronically. Today's actions modernize and reform these existing procedures.[667]

260. In 2011, the Commission released a Report and Order revising Part 1 and Part 0 of its rules.[668] One aspect of the *Part 1 Order* was a requirement that docketing and electronic filing begin to be utilized in proceedings involving "[n]ewly filed Section 208 formal common carrier complaints and newly filed Section 224 pole attachment complaints before the Enforcement Bureau."[669] On November 12, 2014, the Commission released an order that amended its procedural rules governing formal complaints under section 208 and pole attachment complaints under section 224 to require electronic filing.[670] We established within ECFS a "Submit a Non-Docketed Filing" module where all such complaints must be filed because staff must review a complaint for conformance with the Commission's rules before the matter can receive its own unique ECFS proceeding number.[671]

261. We now extend those rule changes to open Internet formal complaints.[672] When filing such a complaint, as of the effective date of this Order, the complainant will be required to select "Open Internet Complaint: Restricted Proceeding" from the "Submit a Non-Docketed Filing" module in ECFS. The filing must include the complaint, as well as all attachments to the complaint.[673] When using ECFS

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these benefits as well, as they enable informal resolution of complaints and free mediation by the Enforcement Bureau's Market Disputes Resolution Division.

[666] 47 C.F.R. Part 8.

[667] The rule changes described in this section do not apply to open Internet *informal* complaints. Consumers will continue to have the ability to file informal complaints electronically with the Consumer & Governmental Affairs Bureau. The form for filing an informal complaint is available at https://consumercomplaints.fcc.gov/hc/en-us.

[668] *Amendment of Certain of the Commission's Part 1 Rules of Practice and Procedure and Part 0 Rules of Commission Organization*, GC Docket No. 10-44, Report and Order, 26 FCC Rcd 1594 (2011) (*Part 1 Order*).

[669] *Id*. at 1599-1600, para. 15; *see also* 47 U.S.C. §§ 208, 224.

[670] *Amendment of Certain of the Commission's Part 1 Rules of Practice and Procedure Relating to the Filing of Formal Complaints Under Section 208 of the Communications Act and Pole Attachment Complaints Under Section 224 of the Communications Act*, GC Docket No. 10-44, Order, 29 FCC Rcd 14078 (2014).

[671] *Id.* at 14079-80, para. 7. In this order, the Commission also modified the rules for filing requests for confidential treatment of proprietary information to ensure that the two sets of rules were uniform and consistent with the Commission's e-filing practices. *Id.* at 14080, para. 12 & n.22.

[672] We hereby amend the caption for the ECFS docket to "*Section 208 and 224 and Open Internet Complaint Inbox, Restricted Proceedings*." We also amend rule 8.16, which governs confidentiality of proprietary information, to conform to the changes we made regarding confidentiality in the section 208 and section 224 complaint rules. *See infra* Appendix (detailing revisions to 47 C.F.R. § 8.16).

[673] All electronic filings must be machine-readable, and files containing text must be formatted to allow electronic searching and/or copying (e.g., in Microsoft Word or PDF format). Non-text filings (e.g., Microsoft Excel) must be submitted in native format. Be certain that filings submitted in .pdf or comparable format are not locked or password-protected. If those restrictions are present (e.g., a document is locked), the ECFS system may reject the filing, and a party will need to resubmit its document within the filing deadline. The Commission will consider granting waivers to this electronic filing requirement only in exceptional circumstances. *See Part 1 Order*, 26 FCC Rcd at 1602, para. 20 & n.61 (citing *Amendment of the Commission's Ex Parte Rules and Other Procedural Rules*,

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to initiate new proceedings, a complainant no longer will have to file its complaint with the Office of the Secretary unless the complaint includes confidential information.[674]

262. Enforcement Bureau staff will review new open Internet formal complaints for conformance with procedural rules (including fee payment).[675] As of the effective date of this Order, complainants no longer will submit a hard copy of the complaint with the fee payment as described in rule 1.1106.[676] Instead, complainants must first transmit the complaint filing fee to the designated payment center and then file the complaint electronically using ECFS.[677]

263. Assuming a complaint satisfies this initial procedural review, Enforcement Bureau staff then will assign an EB file number to the complaint (EB Identification Number), give the complaint its own case-specific ECFS proceeding number, and enter both the EB Identification Number and ECFS proceeding number into ECFS. At that time, Enforcement Bureau staff will post a Notice of Complaint Letter in the case-specific ECFS proceeding and transmit the letter (and the complaint) via e-mail to the defendant. On the other hand, if a filed complaint does not comply with the Commission's procedural rules, Enforcement Bureau staff will serve a rejection letter on the complainant and post the rejection letter and related correspondence in ECFS. Importantly, the rejection letter will not preclude the complainant from curing the procedural infirmities and refiling the complaint.[678]

264. As of the effective date of this Order, all pleadings, attachments, exhibits, and other documents in open Internet formal complaint proceedings must be filed using ECFS, both in cases where the complaint was initially filed in ECFS and in pending cases filed under the old rules.[679] With respect to complaints filed prior to the effective date of this Order, Enforcement Bureau staff will assign an individual ECFS proceeding number to each existing proceeding and notify existing parties by email of this new ECFS number. This ECFS proceeding number will be in addition to the previously-assigned number. The first step in using ECFS is to input the individual case's ECFS proceeding number or EB Identification Number. The new rules allow parties to serve post-complaint submissions on opposing parties via email without following up by regular U.S. mail.[680] Parties must provide hard copies of submissions to staff in the Market Disputes Resolution Division of the Enforcement Bureau upon request.[681]

265. Consistent with existing Commission electronic filing guidelines,[682] any party asserting

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Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4517, 4531-32, para. 55 (2011) (*Ex Parte Reform Order*)).

[674] *See infra* Appx (detailing revisions to 47 C.F.R. §§ 8.13(b), 8.16).

[675] Complainants must remit filing fees for complaints in accordance with 47 C.F.R. § 1.1106.

[676] *See infra* Appx. A (revisions to § 8.13(b)).

[677] Complainants may transmit the complaint filing fee via check, wire transfer, or electronically using the Commission's Fee Filer System (Fee Filer).

[678] Enforcement Bureau staff will not assign an EB file number or a separate ECFS docket number to a rejected complaint, but interested persons can locate the rejected complaint by searching for party names, dates, rule citation, or other relevant ECFS search criteria.

[679] *See infra* Appx. A (revisions to §§ 8.13, 8.16).

[680] *See infra* Appx. A (revisions to § 8.13). Parties using email service should be mindful that the Commission's or the opposing party's computer server may reject email attachments that are too large.

[681] *See infra* Appx. A (revisions to § 8.13).

[682] *See* 47 C.F.R. § 0.459(a)(2).

that materials filed in an open Internet formal complaint proceeding are proprietary must file with the Commission, using ECFS, a public version of the materials with any proprietary information redacted.[683] The party also must file with the Secretary's Office an unredacted hard copy version that contains the proprietary information and clearly marks each page, or portion thereof, using bolded brackets, highlighting, or other distinct markings that identify the sections of the filing for which a proprietary designation is claimed.[684] Each page of the redacted and unredacted versions must be clearly identified as the "Public Version" or the "Confidential Version," respectively.[685] Both versions must be served on the same day.[686]

b. Alternative Dispute Resolution

266. The Commission sought comment on various modes of alternative dispute resolution for resolving open Internet disputes. Currently, parties with disputes before the Commission are free to voluntarily engage in mediation, which is offered by the Market Disputes Resolution Division (MDRD) at no charge to the parties. This process has worked well and has led to the effective resolution of numerous complaints. We will take steps to improve awareness of this approach. In the *2014 Open Internet NPRM*, we asked whether other approaches, such as arbitration, should be considered, in order to ensure access to dispute resolution by smaller edge providers and other entities without resources to engage in the Commission's formal complaint process.

267. We decline to adopt arbitration procedures or to mandate arbitration for parties to open Internet complaint proceedings. Under the rules adopted today, parties are still free to engage in mediation and outside arbitration to settle their open Internet disputes, but alternative dispute resolution will not be required.[687] Commenters generally do not favor arbitration in this context and recommend that the Commission not adopt it as the default method for resolving complaints.[688] Commenters suggest that mandatory arbitration, in particular, may more frequently benefit the party with more resources and more understanding of dispute procedure, and therefore should not be adopted.[689] We agree with these

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[683] *See infra* Appx. A (revisions to § 8.16).

[684] *Id.* Filers must ensure that proprietary information has been properly redacted and thus is not viewable. If a filer inadvertently discloses proprietary information, the Commission will not be responsible for that disclosure. *Part 1 Order*, 26 FCC Rcd at 1600-01, para. 17, n.49.

[685] *See infra* Appx. A (revisions to § 8.16).

[686] *Id.*

[687] As a general matter, the Commission lacks the ability to subdelegate its authority over these disputes to a private entity, like a third-party arbitrator, *see U.S. Telecom Ass'n v. FCC*, 359 F.3d 554, 566 (D.C. Cir. 2004) ("[W]hile federal agency officials may subdelegate their decision-making authority to subordinates absent evidence of contrary congressional intent, they may not subdelegate to outside entities–private or sovereign–absent affirmative evidence of authority to do so"), and "may not require any person to consent to arbitration as a condition of entering into a contract or obtaining a benefit." 5 U.S.C. § 575(a)(3). As noted in the *2014 Open Internet NPRM*, however, mandatory third-party arbitration may be allowed so long as it is subject to *de novo* review by the Commission. *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5622 n.354 (citing *Comcast Corp., Petition for Declaratory Ruling that The America Channel is not a Regional Sports Network*, File No. CSR-7108, Order, 22 FCC Rcd 17938, 17948, para. 4, n.13 (2007))*; see also* AAJC Comments at 4.

[688] *See, e.g.*, AAJC Comments at 2; Public Citizen and NACA Comments at 1; NASUCA Comments at 17 ("consumers should not be required to submit to arbitration to resolve disputes with broadband providers").

[689] *See, e.g.*, AAJC Comments at 1 (noting that "[i]n most cases, consumers must pay filing fees and the arbitrator's costs, which can amount to thousands of dollars," and the provider can select the arbitration location, making the process even costlier; further noting that arbitrated decisions are not reviewable and often not public, precluding consumers from uncovering potential biases in the process); Public Citizen and NACA Comments at 1-2.

concerns and conclude that adoption of arbitration rules is not necessary or appropriate in this context.

c. Multistakeholder Processes and Technical Advisory Groups

268. In the *2014 Open Internet NPRM*, the Commission sought comment on whether enforcement of open Internet rules—including resolution of open Internet disputes—could be supported by multistakeholder processes that enable the development of independent standards to guide the Commission in compliance determinations. The Commission also asked whether it should incorporate the expertise of technical advisory groups into these determinations.[690]

269. We conclude that incorporating groups with technical expertise into our consideration of formal complaints has the potential to inform the Commission's judgment and improve our understanding of complex and rapidly evolving technical issues. By requiring electronic filing of all pleadings in open Internet formal complaint proceedings,[691] we will enable interested parties to more easily track developments in the proceedings and participate as appropriate. Although formal complaint proceedings are generally restricted for purposes of the Commission's *ex parte* rules,[692] interested parties may seek permission to file an amicus brief. The Commission "consider[s] on a case-by-case basis motions by non-parties wishing to submit amicus-type filings addressing the legal issues raised in [a] proceeding,"[693] and grants such requests when warranted.[694] Thus, for example, the Commission granted a motion for leave to file an amicus brief in a section 224 pole attachment complaint proceeding "in light of the broad policy issues at stake.[695]

270. To further advance the values underlying multistakeholder processes—inclusivity, transparency, and expertise—we also amend our Part 8 formal complaint rules by delegating authority to the Enforcement Bureau, in its discretion, to request a written opinion from an outside technical organization. As reviewing courts have established, "[a] federal agency may turn to an outside entity for advice and policy recommendations, provided the agency makes the final decisions itself."[696]

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[690] Commenters generally support the idea of having greater input from associations and technical advisory groups in the Commission's open Internet regulation. *See, e.g.*, CFA Comments at 5; Layton Comments at 18; Mozilla Comments at 25-26; TechFreedom Comments at 99-100; WISPA Comments at 35. *But see* CCIA Comments at 32. They point out that such input can improve inclusivity and transparency, *see, e.g.*, Layton Comments at 18; Mozilla Comments at 26; WISPA Comments at 35, and ensures that the Commission's enforcement is sufficiently informed by the most up-to-date technical insights regarding network management and other features of Internet engineering. *See, e.g.*, Comcast Comments at 70; Cox Comments at 29; ITIF Comments at 20; Layton Comments at 19 ("A multi-stakeholder model is also preferable when evidence is limited and technological change is swift."); MDTC Comments at 1; NetAccess Futures Comments at 29.

[691] *See supra* Section III.E.3.a.

[692] *See* 47 C.F.R. §§ 1.1202(d)(2), 1.1208; *see also North County Communications Corp., Complainant v. MetroPCS California, LLC, Defendant*, EB-06-MD-007, Memorandum Opinion and Order, 24 FCC Rcd 3807, 3818 n.85 (2009).

[693] *AT&T Corp. v. Business Telecom, Inc.*, EB-01-MD-001, Order on Reconsideration, 16 FCC Rcd 21750, 21754, n.21 (2001) (quoting *Pleading Schedule Established for AT&T Corp. v. Ameritech Corp.*, Public Notice, 13 FCC Rcd 12057, 12058 (Com. Car. Bur. 1998)).

[694] If a party to the proceeding is a member of or is otherwise represented by an entity that requests leave to file an amicus brief, the entity must disclose that affiliation in its request.

[695] *In the matter of Heritage Cablevision Assoc. of Dallas, L.P. v. Texas Util. Elec. Co.*, Memorandum Opinion and Order, 6 FCC Rcd 7099, 7101, para. 10, n.13 (1991), *review denied sub nom. Texas Utilities Elec. Co. v. F.C.C.*, 997 F.2d 925 (D.C. Cir. 1993).

[696] *U.S. Telecom Ass'n v. FCC*, 359 F.3d 554, 568 (D.C. Cir. 2004).

271. In this instance, given the potential complexity of the issues in open Internet formal complaint proceedings, it may be particularly useful to obtain objective advice from industry standard-setting bodies or other similar organizations.[697] Providing Commission staff with this flexibility also will enable more informed determinations of technical Internet issues that reflect current industry standards and permit staff to keep pace with rapidly changing technology.[698] Expert organizations will not be required to respond to requests from the Enforcement Bureau for opinions; however, any organization that elects to do so must provide the opinion within 30 days of the request—unless otherwise specified by the staff—in order to facilitate timely dispute resolution. We find that this approach will allow for the inclusivity the multistakeholder process offers, while also providing the predictability and legal certainty of the Commission's formal dispute resolution process.[699]

272. For informal complaints and investigations, the Enforcement Bureau's efforts will continue to be informed by resolutions of formal complaints, and will also continue to be informed by the standards developed by existing multistakeholder, industry, and consumer groups.[700] The Enforcement Bureau will also work with interested parties on an informal basis to identify ways to promote compliance with the open Internet rules.

F. Legal Authority

273. We ground the open Internet rules we adopt today in multiple sources of legal authority—section 706, Title II, and Title III of the Communications Act. We marshal all of these sources of authority toward a common statutorily-supported goal: to protect and promote Internet openness as platform for competition, free expression and innovation; a driver of economic growth; and an engine of the virtuous cycle of broadband deployment.

274. We therefore invoke multiple, complementary sources of legal authority.[701] As a number

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[697] *See* Charter Comments at 35-36 (recommending that the Commission "take full advantage of the multi-stakeholder forums that have helped to define the Internet and enable it to flourish."); Cox Comments at 29 (supporting the NPRM's proposal to adopt additional dispute resolution mechanisms that are informed by input from technical advisory groups); Mozilla Comments at 25-26 (recommending that technical bodies like the Open Internet Advisory Committee (OIAC) and the Broadband Internet Technical Advisory Group (BITAG) be consulted on technical issues like reasonable network management); NetAccess Futures Comments at 29.

[698] Whenever possible, the Enforcement Bureau should request advisory opinions from expert organizations whose members do not include any of the parties to the proceeding. If no such organization exists, the Enforcement Bureau may refer issues to an expert organization with instructions that representatives of the parties to the complaint proceeding may not participate in the organization's consideration of the issues referred or the drafting of its advisory opinion.

[699] Moreover, we note that the Commission cannot as a matter of law delegate its dispute resolution processes to outside organizations. *See supra* note 687. Accordingly, while we support the goals of Mozilla's "three-phase" dispute resolution model, the Commission cannot go so far as to delegate leadership over open Internet disputes to outside multistakeholder groups. *See* Mozilla Comments at 26.

[700] *See, e.g.*, Comcast Comments at 70; ITIF Comments at 20; MDTC Comments at 1.

[701] CDT Reply at 3 (suggesting the Commission consider an approach that "builds upon the recent D.C. Circuit decision and some of the strengths of Title II and Section 706."); CFA Comments at 66 ("[T]he authorities overlap—a service can fall under more than one authority simultaneously—and are complementary (in the sense that they trigger different tools for different purposes). Therefore, there is no conflict between asserting the authority and developing the power under each of the Titles and sections of the Act. In fact . . . it would be imprudent for the Commission not to pursue all of the authorities it has available."); iClick2Media Comments at 10 ("By combining the power of 706, Title II and Title III the FCC is afforded the reasoning and the power granted to it to protect the Openness of the Internet for years to come."); AARP Comments at 40 ("Title II and Section 706 are highly complementary.").

of parties point out, our authority under section 706 is not mutually exclusive with our authority under Titles II and III of the Act.[702] Rather, we read our statute to provide several, alternative sources of authority that work in concert toward common ends. As described below, under section 706, the Commission has the authority to adopt these open Internet rules to encourage and accelerate the deployment of broadband to all Americans. In the Declaratory Ruling and Order below, we find, based on the current factual record, that BIAS is a telecommunications service subject to Title II and exercise our forbearance authority to establish a "light-touch" regulatory regime, which includes the application of sections 201 and 202. This finding both removes the common carrier limitation from the exercise of our affirmative section 706 authority and also allows us to exercise authority directly under sections 201 and 202 of the Communications Act in adopting today's rules. Finally, these rules are also supported by our Title III authority to protect the public interest through spectrum licensing. In this section, we discuss the basis and scope of each of these sources of authority and then explain their application to the open Internet rules we adopt today.

1. Section 706 Provides Affirmative Legal Authority for Our Open Internet Rules.

275. Section 706 affords the Commission affirmative legal authority to adopt all of today's open Internet rules. Section 706(a) directs the Commission to take actions that "shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[703] To do so, the Commission may utilize "in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."[704] Section 706(b), in turn, directs that the Commission "shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market," if it finds after inquiry that advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion.[705] "Advanced telecommunications capability" is defined as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."[706] Sections 706(a) and (b) each provide an express, affirmative grant of authority to the Commission and the rules we adopt today fall well within their scope.

276. *Section 706(a) and (b) Are Express Grants of Authority.* In *Verizon*, the D.C. Circuit squarely upheld as reasonable the Commission's reading of section 706(a) as an affirmative grant of

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[702] CFA Comments at 68 (explaining that "recent court cases have made it clear that 706 and other authorities can be invoked simultaneously (although they need not be)"); AOL Comments at 9 ("Section 706 and Title II need not be mutually exclusive.").

[703] 47 U.S.C. § 1302(a). Section 706(a) provides in full:

> The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.

[704] *Id.*

[705] 47 U.S.C. § 1302(b).

[706] *Id.* § 1302(d)(1).

authority.[707] Finding that provision ambiguous, the court upheld the Commission's interpretation as consistent with the statutory text,[708] legislative history,[709] and the Commission's lengthy history of regulating Internet access.[710]

277. Separately addressing section 706(b), the D.C. Circuit held, citing similar reasons, that the "Commission has reasonably interpreted section 706(b) to empower it to take steps to accelerate broadband deployment if and when it determines that such deployment is not "reasonable and timely."[711] The 10th Circuit, in upholding the Commission's reform of our universal service and inter-carrier compensation regulatory regime, likewise concluded that the Commission reasonably construed section 706(b) as an additional source of authority for those regulations.[712]

278. In January, the Commission adopted the *2015 Broadband Progress Report*, which determined that advanced telecommunications capability is not being deployed in a reasonable and timely manner to all Americans.[713] That determination triggered our authority under section 706(b) to take immediate action, including the adoption of today's open Internet rules, to accelerate broadband deployment to all Americans.

279. We interpret sections 706(a) and 706(b) as independent, complementary sources of affirmative Commission authority for today's rules. Our interpretation of section 706(a) as a grant of express authority is in no way dependent upon our findings in the section 706(b) inquiry. Thus, even if the Commission's inquiry were to have resulted in a positive conclusion such that our section 706(b) authority were not triggered this would not eliminate the Commission's authority to take actions to encourage broadband deployment under section 706(a).[714]

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[707] *Verizon*, 740 F.3d at 637 ("The question, then, is this: Does the Commission's current understanding of section 706(a) as a grant of regulatory authority represent a reasonable interpretation of an ambiguous statute? We believe it does.") A few commenters argue that the court incorrectly concluded that section 706(a) and (b) are express grants of authority. *See, e.g.*, TechFreedom Comments at 62-70 (arguing that section 706 is not an independent grant of authority and that the court erred in its *Chevron* analysis); CenturyLink Comments at 53 ("Section 706(a) contains no grant of independent regulatory authority of any kind . . . ."). For the reasons discussed in the text, by the Commission in the *2010 Open Internet Order*, and the court in *Verizon* and *In re FCC,* we disagree.

[708] *Verizon*, 740 F.3d at 637-38. As the *Verizon* court explained, for example, "Section 706(a)'s reference to state commissions does not foreclose such a reading" of section 706(a) as an express grant of authority. *Id.* at 638. Nor, as one of the dissents suggests, (*see* Pai Dissent at 55), is the statute's reference to "[s]tate commission" rendered meaningless by the Commission's reaffirmation that BIAS is an interstate service for regulatory purposes. *See infra* para 431. The Commission's interpretation does not preclude all state commission action in this area, just that which is inconsistent with the federal regulatory regime we adopt today. *See NARUC Broadband Data Order*, 25 FCC Rcd at 5054-55.

[709] *Id.* at 638-39.

[710] *Id.* (distinguishing *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000)) ("[W]hen Congress passed section 706(a) in 1996, it did so against the backdrop of the Commission's long history of subjecting to common carrier regulation the entities that controlled the last-mile facilities over which end users accessed the Internet.").

[711] *Verizon*, 740 F.3d at 640-43.

[712] *In re FCC 11-161*, 753 F.3d 1015, 1053 (10th Cir. 2014).

[713] *See 2015 Broadband Progress Report* at para. 4.

[714] *See, e.g.*, Letter from Lawrence J. Spiwak, President, Phoenix Center for Advanced Legal & Economic Public Policy Studies, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. A, Phoenix Center Policy Bulletin No. 35, *What are the Bounds of the FCC's Authority over Broadband Service Providers? A Review of the Recent Case Law* at 23 (filed Oct. 31, 2014) (Phoenix Center Oct. 31, 2014 *Ex Parte* Letter) (concluding that the *Verizon* court took the view that "706(a) is independent from 706(b), because the court seemed to say that the

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280. We reject arguments that we lack rulemaking authority to implement section 706 of the 1996 Act.[715] In *Verizon*, the D.C. Circuit suggested that section 706 was part of the Communications Act of 1934.[716] Under such a reading, the Commission would have all its standard rulemaking authority under sections 4(i), 201(b) and 303(r) to adopt rules implementing that provision.[717] Even if this were not the case, by its terms our section 4(i) rulemaking authority is not limited just to the adoption of rules pursuant to substantive jurisdiction under the Communications Act,[718] and the *Verizon* court cited as reasonable the Commission's view that Congress, in placing upon the Commission the obligation to carry out the purposes of section 706, "necessarily invested the Commission with the statutory authority to carry out those acts."[719]

281. *The Open Internet Rules Fall Well Within the Scope of Our Section 706 Authority.* In *Verizon*, the D.C. Circuit agreed with the Commission that while authority under section 706 may be broad, it is not unbounded.[720] Both the Commission and the court have articulated its limits. First, section 706 regulations must be within the scope of the Commission's subject matter jurisdiction over "interstate and foreign communications by wire and radio."[721] And second, any such regulations must be

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defined trigger of 706(b) is irrelevant to the Commission's on-going (and independent) effort to promote broadband deployment under 706(a) under foreseeable market conditions"). Contrary to one of the dissenting statements, (*see* Pai Dissent at 56), Commission actions adopted pursuant to a negative section 706(b) determination would not simply be swept away by a future positive section 706(b) finding. The Commission takes such measures precisely to achieve section 706(b)'s goal of accelerating deployment. That they may succeed in achieving that goal so as to contribute to a positive section 706(b) finding does not subsequently render them unnecessary or unauthorized without any further Commission process. Throwing away such measures because they are working would be like "throwing away your umbrella in a rainstorm because you are not getting wet." *Shelby v. Holder*, 133 S. Ct. 2612, 2650 (2013) (Ginsburg, J., dissenting). Even if that were not the case, independent section 706(a) authority would remain. We mention, however, two legal requirements that appear relevant. First, section 408 of the Act mandates that "all" FCC orders (other than orders for the payment of money) "shall continue in force for the period of time specified in the order or until the Commission or a court of competent jurisdiction issues a superseding order." 47 U.S.C. § 408. Second, the Commission has a "continuing obligation to practice reasoned decisionmaking" that includes revisiting prior decisions to the extent warranted. *Aeronautical Radio v. FCC*, 928 F.2d 428 (D.C. Cir. 1991). We are aware of no reason why these requirements would not apply in this context.

[715] *See, e.g.*, Earl Comstock Reply at 18-33 (arguing that section 706 contained no affirmative authority for rulemaking).

[716] *See Verizon*, 740 F.3d at 650 (stating that "Congress expressly directed that the 1996 Act . . . be inserted into the Communications Act of 1934") (citation omitted).

[717] 47 U.S.C. § 154(i) ("The Commission may . . . make such rules and regulations . . . not inconsistent with this chapter, as may be necessary in the execution of its functions."); 47 U.S.C. § 201(b) ("The Commission may prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter."); 47 U.S.C. § 303(r) ("Except as otherwise provided in this chapter, the Commission from time to time, as public convenience, interest, or necessity requires, shall . . . [m]ake such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this chapter").

[718] *See* 47 U.S.C. § 154(i).

[719] *Verizon*, 740 F.3d at 638 (quoting *2010 Open Internet Order*, 25 FCC Rcd at 17969, para. 120).

[720] *Verizon*, 740 F.3d at 639-40.

[721] *Id.* at 640 (citing 47 U.S.C. §152(a)). Some have read this to require that regulations under section 706 must be ancillary to existing Commission authority in Title II, III or VI of the Act. *See* Phoenix Center Oct. 31, 2014 *Ex Parte* Letter, Attach. A at 25 ("Section 706 is really another form of the Commission's ancillary authority—that is, like any use of its traditional ancillary authority . . . *Verizon* requires the Commission to tie its use of Section 706 to a specific delegation of authority in Title II, Title III, or Title VI."). We disagree. To be sure, with the

(continued….)

designed to achieve the purpose of section 706(a)—to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[722]

282. In *Verizon*, the court firmly concluded that the Commission's *2010 Open Internet Order* regulations fell within the scope of section 706. It explained that the rules "not only apply directly to broadband providers, the precise entities to which section 706 authority to encourage broadband deployment presumably extends, but also seek to promote the very goal that Congress explicitly sought to promote."[723] Further, the court credited "the Commission's prediction that the *Open Internet Order* regulations will encourage broadband deployment."[724] The same is true of the open Internet rules we adopt today. Our regulations again only apply to last-mile providers of broadband services—services that are not only within our subject matter jurisdiction, but also expressly within the terms of section 706.[725] And, again, each of our rules is designed to remove barriers in order to achieve the express purposes of section 706. We also find that our rules will provide additional benefits by promoting competition in telecommunications markets, for example, by fostering competitive provision of VoIP and video services and informing consumers' choices.

2. Authority for the Open Internet Rules Under Title II with Forbearance

283. In light of our Declaratory Ruling below, the rules we adopt today are also supported by our legal authority under Title II to regulate telecommunications services. For the reasons set forth below, we have found that BIAS is a telecommunications service and, for mobile broadband, commercial mobile services or its functional equivalent. While we forbear from applying many of the Title II regulations to this service,[726] we have applied sections 201, 202, and 208 (along with related enforcement authorities). These provisions provide an alternative source of legal authority for today's rules.

284. Section 201(a) places a duty on common carriers to furnish communications services subject to Title II "upon reasonable request" and "establish physical connections with other carriers" where the Commission finds it to be in the public interest.[727] Section 201(b) provides that "[a]ll charges,

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Commission's exercise of both section 706 and ancillary authority, regulations must be within the Commission's subject matter jurisdiction. Indeed, this is the first prong of the test for ancillary jurisdiction. *American Library Ass'n v. FCC*, 406 F.3d 689, 703–04 (D.C. Cir. 2005). But we do not read the *Verizon* decision as applying the second prong—which requires that the regulation be sufficiently linked to another provision of the Act—to our exercise of section 706 authority. Section 706 "does not limit the Commission to using other regulatory authority already at its disposal, but instead grants it the power necessary to fulfill the statute's mandate." *See Verizon*, 740 F.3d at 641 (citing *2010 Open Internet Order*, 25 FCC Rcd at 17972, para. 123).

[722] *Verizon*, 740 F.3d at 640 (citing 47 U.S.C. § 1302(a)).

[723] *Id.* at 643.

[724] *Id.* at 644.

[725] In response to parties expressing concerns that section 706 could be read to impose regulations on edge providers or others in the Internet ecosystem, *see, e.g.*, Disney et al. Reply at 2; ITIF Comments at 9-10, we emphasize that today's rules apply only to last-mile broadband providers. We reject calls from other commenters to exercise our section 706 authority to adopt open Internet regulations for edge providers. *See, e.g.*, ACA Comments at 47-48; Cox Comments at 13 ("[F]rom the Commission's perspective, it should not make any difference whether the entity engaging in blocking or other discrimination is a broadband provider or an edge provider that hosts its content online."). Today's rules are specifically designed to address broadband providers' incentives and ability to erect barriers that harm the virtuous cycle. We see no basis for applying these rules to any other providers. *See supra* Section III.D.

[726] *See infra* Section V.

[727] 47 U.S.C. § 201(a).

practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is declared to be unlawful."[728] It also gives the Commission the authority to "prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter."[729] Section 202(a) makes it "unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage."[730] As described below, these provisions provide additional independent authority for the rules we adopt today.

3. Title III Provides Additional Authority for Mobile Broadband Services

285. With respect to mobile broadband Internet access services, today's open Internet rules are further supported by our authority under Title III of the Act to protect the public interest through spectrum licensing.[731] While this authority is not unbounded, we exercise it here in reliance upon particular Title III delegations of authority.

286. Section 303(b) directs the Commission, consistent with the public interest, to "[p]rescribe the nature of the service to be rendered by each class of licensed stations and each station within any class."[732] Today's conduct regulations do precisely this. They lay down rules about "the nature of the service to be rendered" by licensed entities providing mobile broadband Internet access service, making clear that this service may not be offered in ways that harm the virtuous cycle. Today's rules specify the form this service must take for those who seek licenses to offer it. In providing such licensed service, broadband providers must adhere to the rules we adopt today.

287. This authority is bolstered by at least two additional provisions. First, as the D.C. Circuit has explained, section 303(r) supplements the Commission's ability to carry out its mandates via rulemaking.[733] Second, section 316 authorizes the Commission to adopt new conditions on existing licenses if it determines that such action "will promote the public interest, convenience, and necessity."[734] Nor do today's rules work any fundamental change to those licenses.[735] Rather we understand our rules to be largely consistent with the current operation of the Internet and the current practices of mobile

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[728] 47 U.S.C. § 201(b).

[729] *Id.*

[730] 47 U.S.C. § 202(a).

[731] *See Cellco*, 700 F.3d at 541-42 (citing *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265, Second Report and Order, 26 FCC Rcd 5411, 5440, para. 62 (2011)); 47 U.S.C. §§ 301, 304, 307, 309.

[732] 47 U.S.C. § 303(b).

[733] *Cellco*, 700 F.3d at 543 (citing *Motion Picture Ass'n of America v. FCC*, 309 F.3d 796, 806 (D.C. Cir. 2002)).

[734] 47 U.S.C. § 316. The Commission also has ample authority to impose conditions to serve the public interest in awarding licenses in the first instance. *See* 47 U.S.C. §§ 309(a); 307(a). Indeed, the Commission has required 700 MHz C Block spectrum licensees to comply with open Internet conditions to advance the public interest in innovation and consumer choice. *See 700 MHz Second Report and Order*, 22 FCC Rcd at 15363, para. 201.

[735] *See Cellco*, 700 F.3d at 543-44.

broadband service providers.[736]

4. Applying these Legal Authorities to Our Open Internet Rules

288. *Bright line rules.* Applying these statutory sources of authority, we have ample legal bases on which to adopt the three bright-line rules against blocking, throttling, and paid prioritization. To begin, we have found that broadband providers have the incentive and ability to engage in such practices—which disrupt the unity of interests between end users and edge providers and thus threaten the virtuous cycle of broadband deployment. As the D.C. Circuit found with respect to the 2010 conduct rules, such broadband provider practices fall squarely within our section 706 authority. The court struck down the 2010 conduct rules after finding that the Commission failed to provide a legal justification that would take the rules out of the realm of impermissibly mandating common carriage, but did not find anything impermissible about the need for such rules to protect the virtuous cycle.[737] Given our classification of broadband Internet access service as a telecommunications service, the court's rationale for vacating our 2010 conduct rules no longer applies and, for the reasons discussed above, we have legal justification to support our bright-line rules under section 706.[738]

289. Our bright-line rules are also well grounded in our Title II authority. In Title II contexts, the Commission has made clear that blocking traffic generally is unjust and unreasonable under section 201.[739] The Commission has likewise found it unjust and unreasonable for a carrier to refuse to allow non-harmful devices to attach to the network.[740] And with respect to throttling, Commission precedent has likewise held that "no carriers . . . may block, choke, reduce or restrict traffic in any way."[741] We see

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[736] *See, e.g.*, Verizon Comments at 3 ("Verizon has been clear with our customers that we will not block their access to any content, applications, services, or devices based on their source."); Charter Comments at 1 ("Like other Internet Service Providers (ISPs), Charter does not block lawful content or engage in pay-for-prioritization."); AT&T Comments at 3 ("AT&T has no intention of creating fast lanes and slow lanes or of using prioritization arrangements for discriminatory or anti-competitive ends, as some net neutrality proponents fear.").

[737] *Verizon*, 740 F.3d at 655-58.

[738] The record generally affirms our authority to adopt bright-line rules under Section 706, absent a contrary statutory prohibition. *See, e.g.*, Comcast Dec. 24, 2014 *Ex Parte* Letter at 1-3; Waxman Oct. 3, 2014 *Ex Parte* Letter at 9 ("Once broadband Internet access is reclassified, I believe the FCC can use its authorities under section 706 to adopt three bright-line rules: a 'no blocking' rule, a 'no throttling' rule, and a 'no paid prioritization' rule.").

[739] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17903 ("Commission precedent provides that no carriers, including interexchange carriers, may block, choke, reduce or restrict traffic in any way."); *id.* at 17903, para. 734 (reiterating that call blocking is impermissible in intercarrier compensation disputes); *Developing an Unified Intercarrier Compensation Regime*; *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, CC Docket No. 01-92, Declaratory Ruling, 27 FCC Rcd 1351, 1354, para. 9 (Wireline Comp. Bur. 2012) (*2012 Declaratory Ruling*) (discussing call blocking in rural call completion context); *Establishing Just and Reasonable Rates for Local Exchange Carriers; Call Blocking by Carriers*, WC Docket No. 07-135, Declaratory Ruling and Order, 22 FCC Rcd 11629, 11629-31, paras. 1, 6 (Wireline Comp. Bur. 2007) (*2007 Declaratory Ruling*) (reiterating that call blocking is impermissible as a self-help measure to address intercarrier compensation dispute); *see also Blocking Interstate Traffic in Iowa*, Memorandum Opinion and Order, 2 FCC Rcd 2692 (1987) (denying application for review of Bureau order, which required petitioners to interconnect their facilities with those of an interexchange carrier in order to permit the completion of interstate calls over certain facilities).

[740] *See Carterfone*, 13 FCC 2d at 424.

[741] *USF/ICC Transformation Order*, 26 FCC Rcd at 17903, para. 734; *2007 Declaratory Ruling*, 22 FCC Rcd at 11631, para 6; *see also Rural Call Completion Order*, 28 FCC Rcd at 16155-56, para. 29.

no basis for departing from such precedents in the case of broadband Internet access services.[742] As discussed above, the record here demonstrates that blocking and throttling broadband Internet access services harm consumers and edge providers, threaten the virtuous cycle, and deter broadband deployment.[743] Consistent with our prior Title II precedents, we conclude that blocking and throttling of broadband Internet access services is an unjust and unreasonable practice under section 201(b).

290. Some parties have suggested that the Commission cannot adopt a rule banning paid prioritization under Title II.[744] We disagree and conclude that paid prioritization is an unjust and unreasonable practice under section 201(b). The unjust and unreasonable standards in sections 201 and 202 afford the Commission significant discretion to distinguish acceptable behavior from behavior that violates the Act. Indeed, the very terms "unjust" and "unreasonable" are broad, inviting the Commission to undertake the kind of line-drawing that is necessary to differentiate just and reasonable behavior on the one hand from unjust and unreasonable behavior on the other.[745]

291. Acting within this discretion, the Commission has exercised its authority, both through adjudication and rulemaking, under section 201(b) to ban unjust and unreasonable carrier practices as unlawful under the Act.[746] Although the particular circumstances have varied, in reviewing these precedents, we find that the Commission generally takes this step where necessary to protect competition and consumers against carrier practices for which there was either no cognizable justification for the action or where the public interest in banning the practice outweighed any countervailing policy concerns.[747] Based on the record here, we find that paid prioritization presents just such a case,

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[742] Commenters agree that the Commission should apply these precedents here. *See, e.g.*, Free Press Comments at 44.; Public Knowledge Nov. 7, 2014 *Ex Parte* Letter at 1; Waxman Oct. 3, 2014 *Ex Parte* Letter at 9-10.

[743] *See supra* Section III.C.1.

[744] *See, e.g.*, TWC Comments at 15 ("Against this backdrop, it is highly unlikely that Title II would support a flat ban on an entire category of potential business arrangements, such as paid prioritization."); NCTA Comments at 28-29 ("Thus, far from supporting an outright ban on an entire class of prioritization arrangements between ISPs and edge providers, Section 202(a) would at most authorize the Commission to undertake a fact-specific, case-by-case analysis of the reasonableness of any particular prioritization arrangement . . ."); Alcatel-Lucent Comments at 10 ("Because Title II has never been interpreted to prohibit all forms of preferential treatment, the Commission could not rely upon its Title II authority to declare all forms of paid prioritization inherently unreasonable."); CenturyLink Comments at 51.

[745] As the D.C. Circuit has stated, for example, "the generality of these terms . . . opens a rather large area for the free play of agency discretion, limited of course by the familiar 'arbitrary' and 'capricious' standard in the Administrative Procedure Act." *Bell Atlantic Tel. Co. v. FCC*, 79 F.3d 1195, 1202 (D.C. Cir. 1996). Stated differently, because both sections "set out broad standards of conduct," it is up to the "Commission [to] give[] the standards meaning by defining practices that run afoul of carriers' obligation, either by rulemaking or by case-by-case adjudication." *Personal Communications Industry Association's Broadband Personal Communications Services Alliance's Petition for Forbearance et al.*, WT Docket No. 98-100, GN Docket No. 94-33, MSD-92-14, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 16857, para. 15 (1998).

[746] We disagree with TWC's suggestion that applying "Section 201(b) requires a contextual, case-specific analysis." TWC Comments at 16. The Commission need not proceed through adjudication in announcing a broad ban on a particular practice. *See, e.g.*, *Rural Call Completion Order*, 28 FCC Rcd at 16155-56, para. 29; *Truth in Billing Rules*, CC Docket No. 98-17, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 7492 (1999) (relying, in part, on section 201(b) in adopting truth-in-billing requirements). Indeed, the text of section 201(b) itself gives the Commission authority to "prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter." 47 U.S.C. 201(b).

[747] *See Long Distance Direct, Inc., Apparent Liability for Forfeiture*, File No. ENF-99-01, Memorandum Opinion and Order, 15 FCC Rcd 3297, 3302, para. 14 (2000) (*LDDI MO&O*) (finding that the company's practice of cramming membership and other unauthorized fees on consumer telephone bills was an unjust and unreasonable

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threatening harms to consumers, competition, innovation, and deployment that outweigh any possible countervailing justification of public interest benefit.[748] Our interpretation and application of section 201(b) in this case to ban paid prioritization is further bolstered by the directive in section 706 to take actions that will further broadband deployment.

292. Several commenters argue that we cannot ban paid prioritization under section 202(a), pointing to Commission precedents allowing carriers to engage in discrimination so long as it is reasonable.[749] As discussed above, however, we adopt this rule pursuant to sections 201(b) and 706, not 202(a). And nothing about section 202(a) prevents us from doing so. We recognize that the Commission has historically interpreted section 202(a) to allow carriers to engage in reasonable discrimination, including by charging some customers more for better, faster, or more service.[750] But those precedents stand for the proposition that such discrimination is *permitted*, not that it must be allowed in all cases.[751]

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practice in connection with communication services); *Central Telecom Long Distance, Inc., Apparent Liability for Forfeiture*, File No. EB-TCD-13-00011651, Notice of Apparent Liability For Forfeiture, 29 FCC Rcd 5517, 5523-27, paras. 14-21 (2014) (*Central NAL*); *U.S. Telecom Long Distance, Inc. Apparent Liability for Forfeiture*, File No. EB-TCD-13-00008959, Notice of Apparent Liability For Forfeiture, 29 FCC Rcd 823, 829-834, paras. 14–20 (2014) (*USTLD NAL*); *Central Telecom Long Distance, Inc., Apparent Liability for Forfeiture*, File No. EB-TCD-13-00006333, Notice of Apparent Liability For Forfeiture, 28 FCC Rcd at 17202-06, paras. 15-22 (2013). *See also NobelTel LLC, Apparent Liability for Forfeiture*, File No. EB-TCD-12-0000412, Notice of Apparent Liability For Forfeiture, 27 FCC Rcd 11760, at 11762-63, para. 6 (2012) (finding that "unfair and **deceptive marketing** practices by interstate common carriers constitute unjust and unreasonable practices under Section 201(b)").

[748] *See supra* paras. 126-128. NCTA contends that we cannot apply section 201(b) to ban paid prioritization because "no broadband providers have entered into such arrangements or even have plans to do so." NCTA Comments at 29. Our open Internet rules, however, cannot take the *status quo* for granted, particularly where one provider has told the D. C. Circuit that but for our 2010 rules, it would be pursuing such arrangements. *See Verizon* Oral Arg. Tr. at 31 ("I'm authorized to state by my client [Verizon] today that but for these rules we would be exploring those commercial arrangements, but this order prohibits those, and in fact would shrink the types of services that will be available on the Internet."). Rather, we put in place rules that in our judgment will best protect consumers and promote competition into the future. Further, as explained above, if a provider can—in the rare case—demonstrate that a particular paid prioritization arrangement would have a cognizable public interest benefit and inflict no harm to the open nature of the Internet, it may be eligible for a waiver.

[749] *See, e.g.*, NCTA Comments 27-29; TWC Comments 14-16; Letter from William L. Kovacks, Chamber of Commerce to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, at 3, n.13 (filed July 15, 2014); ITIF Comments at 9.

[750] *See, e.g.*, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010; Establishment of Rules and Requirements for Priority Access Service*, WT Docket No. 96-86, Second Report & Order, 15 FCC Rcd 16720 (2000) (finding Priority Access Service, a wireless priority service for both governmental and non-government public safety personnel, "prima facie lawful" under section 202); *Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Interexchange Carrier Purchases Of Switched Access Services Offered By Competitive Local Exchange Carriers; Petition of US West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, CC Docket Nos. 96-262, 94-1, 98-157, CCB/CPD File No. 98-63, 14 FCC Rcd 14221 (1999) (granting dominant carriers pricing flexibility for special access services, allowing both higher charges for faster connections as well as individualized pricing and customers discounts). *See also Orloff v. FCC*, 352 F.3d 415 (D.C. Cir. 2003) (upholding carriers' ability to offer differential discounts to retail customers); *Ameritech Operating Cos. Revisions to Tariff FCC No. 2*, Order, DA 94-1121 (Common Carrier Bur. 1994) (upholding reasonableness of rate differentials based on cost considerations).

[751] To be sure, section 202(a) prohibits "unreasonable discrimination" for "like" communications services. But this provision does not, on its face, deprive the Commission of the authority to take actions under other provisions of the Act against discrimination that may not constitute "unreasonable discrimination" under section 202(a).

None of those cases of discrimination presented the kinds of harms demonstrated in the record here—harms that form the basis of our decision to ban the practice as unjust and unreasonable under section 201(b), not 202(a). Furthermore, none of those precedents involved practices that the Commission has twice found threaten to create barriers to broadband deployment that should be removed under section 706. In light of our discretion in interpreting and applying sections 201 and 202 and insofar as section 706(a) is "a 'fail-safe' that 'ensures' the Commission's ability to promote advanced services,"[752] we decline to interpret section 202(a) as preventing the Commission from exercising its authority under sections 201(b) and 706 to ban paid prioritization practices that harm Internet openness and deployment.[753]

293. With respect to mobile broadband Internet access services, our bright-line rules are also grounded in the Commission's Title III authority to ensure that spectrum licensees are providing service in a manner consistent with the public interest.[754]

294. *No-Unreasonable Interference/Disadvantage Standard*. As with our bright-line rules, the no-unreasonable interference/disadvantage standard we adopt today is supported by our section 706 authority. Beyond the practices addressed by our bright-line rules, we recognize that broadband providers may implement unknown practices or engage in new types of practices in the future that could threaten harm by unreasonably interfering with the ability of end users and edge providers to use broadband Internet access services to reach one another. Such unreasonable interference creates a barrier that impedes the virtuous cycle, threatening the open nature of the Internet to the detriment of consumers, competition, and deployment. For conduct outside the three bright-line rules, we adopt the no-unreasonable interference/disadvantage standard to ensure that broadband providers do not engage in practices that threaten the open nature of the Internet in other or novel ways. This standard is tailored to the open Internet harms we wish to prevent, including harms to consumers, competition, innovation, and free expression—all of which could impair the virtuous cycle and thus deter broadband deployment, undermining the goals of section 706.[755]

295. The no-unreasonable interference/disadvantage standard is also supported by section 201 and 202 of the Act, which require broadband providers to engage in practices that are just and reasonable, and not unreasonably discriminatory.[756] The prohibition on no-unreasonable interference/disadvantage represents our interpretation of these 201 and 202 obligations in the open Internet context—an interpretation that is informed by section 706's goals of promoting broadband deployment.[757] In other words, for BIAS, we will evaluate whether a practice is unjust, unreasonable, or unreasonably

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[752] *Verizon*, 740 F.3d at 639 (quoting *2010 Open Internet Order*, 25 FCC Rcd at 17969, para. 120).

[753] To the extent our prior precedents suggest otherwise, for the reasons discussed in the text, we disavow such an interpretation as applied to the open Internet context.

[754] *See supra* Section III.F.3.

[755] Such tailoring is critical to preserving the "unique and open character of the Internet." Higher Education and Libraries Comments at 23-24; *see also* CDT Comments at 19; CDT Reply at 3 ("An innovative approach would be to articulate a new standard that is tailored to the particular aims of this proceeding and is based upon the compelling public policy and societal need underpinning an open Internet.").

[756] 47 U.S.C. §§ 201, 202 (2012).

[757] Given the generality of the terms in sections 201 and 202, the Commission has significant discretion when interpreting how those sections apply to the different services subject to Title II. *See Orloff v. FCC*, 352 F.3d 415, 420 (D.C. Cir. 2003) ("With respect to the Commission's interpretation of § 202 as applied to CMRS, the 'generality of these terms'—unjust, unreasonable—'opens a rather large area for the free play of agency discretion . . .'") (quoting *Bell Atlantic Tel. Co. v. FCC*, 79 F.3d 1195, 1202 (D.C. Cir. 1996)).

discriminatory using this no-unreasonable interference/disadvantage standard. We note, however, that this rule—on its own—does not constitute common carriage *per se*.[758] The no-unreasonable interference/disadvantage standard, *standing alone*, contains no obligation to provide broadband service to any consumer or edge provider and would not, in its isolated application, necessarily preclude individualized negotiations so long as they do not otherwise unreasonably interfere with the ability of end users and edge providers to use broadband Internet access services to reach one another.[759] Rather, particular practices or arrangements that are not barred by our rules against blocking, throttling, and paid prioritization will be evaluated based on the facts and circumstances they present using a series of factors specifically designed to protect the virtuous cycle of innovation and deployment.[760] Thus, this is a rule tied to particular harms. Broadband providers, having chosen to provide BIAS, may not do so in a way that harms the virtuous cycle.

296. For mobile broadband providers, the no-unreasonable interference/disadvantage standard finds additional support in the Commission's Title III authority as discussed above.[761] The Commission has authority to ensure that broadband providers, having obtained a spectrum license to provide mobile broadband service, must provide that service in a manner consistent with the public interest.[762] This standard provides guidance on how the Commission will evaluate particular broadband practices, not otherwise barred by our bright-line rules, to ensure that they are consistent with the public interest.

297. *Transparency Rule.* The D.C. Circuit severed and upheld the Commission's 2010 transparency rule in *Verizon*. While the majority did not expressly opine on the legal authority for the Commission's prior transparency rule, we feel confident that like the 2010 transparency rule, the enhanced transparency rule we adopt today falls well within multiple, independent sources of the Commission's authority. Beginning with section 706, the transparency rule ensures that consumers have sufficient information to make informed choices thereby facilitating competition in the local telecommunications market (to the extent competitive choices are available).[763] Furthermore, these

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[758] Not all requirements which apply to common carriers need impose common carriage *per se*. *See Verizon*, 740 F.3d at 652 (citing *Cellco*, 700 F.3d at 547 ("[C]ommon carriage is not all or nothing—there is a gray area in which although a given regulation might be applied to common carriers, the obligations imposed are not common carriage *per se*. It is in this realm—the space between *per se* common carriage and *per se* private carriage—that the Commission's determination that a regulation does or does not confer common carrier status warrants deference.")); *Id.* at 653 (citing *NARUC v. FCC*, 533 F.2d 601, 608 (D.C. Cir. 1976) (*NARUC II*) ("Since it is clearly possible for a given entity to carry on many types of activities, it is at least logical to conclude that one may be a common carrier with regard to some activities but not others.")).

[759] *See Nat'l Assoc. of Regulatory Utility Comm'rs v. FCC*, 525 F.2d 630, 641 (D.C. Cir. 1976) (*NARUC I*), *cert den.* 425 U.S. 992 (1976) ("But a carrier will not be a common carrier where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal.") (citing *Semon v. Royal Indemnity Co.*, 279 F.2d 737, 739-40 (5th Cir. 1960).

[760] *See supra* paras. 138-145.

[761] *See supra* Section III.F.3.

[762] The Commission has broad authority to prescribe the nature of services to be rendered by licensed stations, consistent with the public interest. 47 U.S.C. § 303(b); *Cellco Partnership v. FCC*, 700 F.3d 534, 542 (D.C. Cir. 2012) ("Although Title III does not 'confer an unlimited power,' the Supreme Court has emphasized that it does endow the Commission with 'expansive powers' and a 'comprehensive mandate to 'encourage the larger and more effective use of radio in the public interest.'") (internal citations omitted) (quoting *NBC v. United States*, 319 U.S. 190, 216, 219 (1943)).

[763] To encourage deployment of "advanced telecommunications capability," section 706(a) authorizes the Commission to engage in measures that "promote competition in the local telecommunications market." 47 U.S.C. § 1302(a). And section 706(b) references "promoting competition in the telecommunications market" as among the immediate actions that Commission shall take to accelerate deployment of "advanced telecommunications

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disclosures remove potential information barriers by ensuring that edge providers have the necessary information to develop innovative products and services that rely on the broadband networks to reach consumers, a crucial arc of the virtuous cycle of broadband deployment. Our transparency rule is also supported by Title II. The Commission has relied on section 201(b) in related billing contexts to ensure that carriers convey accurate and sufficient information about the services they provide to consumers.[764] We do so here as well.[765]

298. *Enforcement.* We also make clear that we have ample authority to enforce the rules we adopt today. Our rules today carry out the provisions of the Communications Act[766] and are thus are covered by our Title IV and V authorities to investigate and enforce violations of these rules.[767] With specific respect to section 706, as noted above, in *Verizon*, the D.C. Circuit suggested that section 706 was part of the Communications Act of 1934.[768] Under such a reading, rules adopted pursuant to section 706 fall within our Title IV and V authorities. But even if this were not the case, we believe it reasonable to interpret section 706 itself as a grant of authority to investigate and enforce our rules.[769] Our enforcement authority was not explicitly discussed in either the *2010 Open Internet Order* or the *Verizon* case. As noted above, the court did cite as reasonable, however, the Commission's view that Congress, in placing upon the Commission the obligation to carry out the purposes of section 706, "necessarily invested the Commission with the statutory authority to carry out those acts."[770] We believe it likewise reasonable to conclude that, having provided the Commission with affirmative legal authority to take regulatory measures to further section 706's goals, Congress invested the Commission with the authority to enforce those measures as needed to ensure those goals are achieved. Indeed, some have suggested

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capability" upon a determination that it is not being reasonably and timely deployed. 47 U.S.C. § 1302(b). We interpret these references to the "telecommunications market" to include the market for "advanced telecommunications capability." In any event, having classified broadband Internet access services as "telecommunications services," the Commission actions to promote competition among broadband Internet access services clearly promote competition in the "telecommunications market."

[764] *Truth-in-Billing and Billing Format*, CC Docket No. 98-170, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 7492, 7503-04, para. 21 (1999); *see generally Truth-in Billing and Billing Format*, CC Docket No. 98-170, CG Docket No. 04-208, Second Report and Order, Declaratory Ruling, and Second Further Notice of Proposed Rulemaking, 20 FCC Rcd 6448 (2005); *Empowering Consumers to Prevent and Detect Billing for Unauthorized Charges ("Cramming"), Consumer Information and Disclosure, Truth-in-Billing and Billing and Billing Format*, CG Docket Nos. 11-116, 09-158, CC Docket No. 98-170, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 4436, 4476-4479, paras. 114-122 (2011); *NobelTel LLC*, 27 FCC Rcd at 11762-63, para. 6 (finding that "unfair and **deceptive marketing** practices by interstate common carriers constitute unjust and unreasonable practices under Section 201(b).").

[765] For the reasons discussed above, we likewise rely on Title III to ensure that spectrum licensees provide mobile broadband Internet access service consistent with the public interest.

[766] *See, e.g.*, 47 U.S.C. §§ 201, 202, 303, 316. We discuss section 706 more specifically below.

[767] 47 U.S.C. §§ 403, 501, 503.

[768] *See Verizon*, 740 F.3d at 650 (stating that "Congress expressly directed that the 1996 Act . . . be inserted into the Communications Act of 1934") (citation omitted).

[769] Moreover, as discussed above, to the extent that section 706 was not viewed as part of the Communications Act, we have authority under section 4(i) of the Communications Act to adopt rules implementing section 706. *See supra* Section III.F.1. Thus, even then the Commission's rules, insofar as they are based on our substantive jurisdiction under section 706, nonetheless would be issued under the Communications Act.

[770] *Verizon*, 740 F.3d at 638 (quoting *2010 Open Internet Order*, 25 FCC Rcd at 17969, para. 120).

that the Commission could take enforcement action pursuant to section 706 itself, without adopting rules.[771]

G. Other Laws and Considerations

299. In the *2014 Open Internet NPRM*, the Commission tentatively concluded that it should retain provisions which make clear that the open Internet rules do not alter broadband providers' rights or obligations with respect to other laws, safety and security considerations, or the ability of broadband providers to make reasonable efforts to address transfers of unlawful content and unlawful transfers of content.[772] We affirm this tentative conclusion and reiterate today that our rules are not intended to expand or contract broadband providers' rights or obligations with respect to other laws or safety and security considerations—including the needs of emergency communications and law enforcement, public safety, and national security authorities. Similarly, open Internet rules protect only *lawful* content, and are not intended to inhibit efforts by broadband providers to address unlawful transfers of content or transfers of unlawful content.

1. Emergency Communications and Safety and Security Authorities

300. In the *2010 Open Internet Order* we adopted a rule that acknowledges the ability of broadband providers to serve the needs of law enforcement and the needs of emergency communications and public safety, national, and homeland security authorities.[773] This rule remains in effect today.[774] To make clear that open Internet protections coexist with other legal frameworks governing the needs of safety and security authorities, we retain this rule, which reads as follows:

> *Nothing in this part supersedes any obligation or authorization a provider of broadband Internet access service may have to address the needs of emergency communications or law enforcement, public safety, or national security authorities, consistent with or as permitted by applicable law, or limits the provider's ability to do so.*

301. In retaining this rule, we reiterate that the purpose of the safety and security provision is first to ensure that open Internet rules do not restrict broadband providers in addressing the needs of law enforcement authorities, and second to ensure that broadband providers do not use the safety and security provision without the imprimatur of a law enforcement authority, as a loophole to the rules.[775] Application of the safety and security rule should be tied to invocation by relevant authorities rather than to a broadband provider's independent notion of the needs of law enforcement.

302. The record is generally supportive of our proposal to reiterate that open Internet rules do not supersede any obligation a broadband provider may have—or limit its ability—to address the needs of emergency communications or law enforcement, public safety, or homeland or national security authorities (together, "safety and security authorities").[776] Broadband providers have obligations under

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[771] *See* Hurwitz Comments at 12 (arguing that the best path forward would be to adopt general policy guidelines that would be directly enforceable under the terms of section 706 through case-by-case adjudication). Thus, for all the reasons described above, we reject claims that we lack authority to enforce rules implementing section 706. *See, e.g.*, Earl Comstock Reply at 18-33 (arguing that section 706 contained no affirmative authority for enforcement).

[772] *2014 Open Internet NPRM*, 29 FCC Rcd at 5578, para. 160.

[773] *2010 Open Internet Order*, 25 FCC Rcd at 17963, para. 107.

[774] 47 C.F.R. § 8.9. *See Verizon*, 740 F.3d at 659 (vacating only the "anti-discrimination and anti-blocking rules"). Today, we recodify this rule as 47 C.F.R. § 8.19. *See infra* Appx. A

[775] *See 2010 Open Internet Order*, 25 FCC Rcd at 17964, paras. 108–110.

[776] *See, e.g.*, Higher Education and Libraries Comments at 33.

statutes such as the Communications Assistance for Law Enforcement Act,[777] the Foreign Intelligence Surveillance Act,[778] and the Electronic Communications Privacy Act[779] that could in some circumstances intersect with open Internet protections. Likewise, in connection with an emergency, there may be federal, state, tribal, and local public safety entities, homeland security personnel, and other authorities that need guaranteed or prioritized access to the Internet in order to coordinate disaster relief and other emergency response efforts, or for other emergency communications. Most commenters recognize the benefits of clarifying that these obligations are not inconsistent with open Internet rules.

303. Some commenters have proposed revisions to the existing rule which would expand its application to public utilities and other critical infrastructure operators.[780] Because we make sufficient accommodation for these concerns elsewhere, we choose not to modify this provision to include critical infrastructure.[781]

2. Transfers of Unlawful Content and Unlawful Transfers of Content

304. In the *NPRM*, we tentatively concluded that we should retain the definition of reasonable network management we previously adopted, which does not include preventing transfer of unlawful content or the unlawful transfer of content as a reasonable practice.[782] We affirm this tentative conclusion and re-state that open Internet rules do not prohibit broadband providers from making reasonable efforts to address the transfer of unlawful content or unlawful transfers of content to ensure that open Internet rules are not used as a shield to enable unlawful activity or to deter prompt action against such activity. For example, the no-blocking rule should not be invoked to protect copyright infringement, which has adverse consequences for the economy, nor should it protect child pornography. We reiterate that our rules do not alter the copyright laws and are not intended to prohibit or discourage voluntary practices undertaken to address or mitigate the occurrence of copyright infringement.[783] After consideration of the record, we retain this rule, which is applicable to both fixed and mobile broadband providers engaged in broadband Internet access service and reads as follows:

> *Nothing in this part prohibits reasonable efforts by a provider of broadband Internet access service to address copyright infringement or other unlawful activity.*

305. Some commenters contend that this rule promotes the widespread use of intrusive packet inspection technologies by broadband providers to filter objectionable content and that such monitoring poses a threat to customers' privacy rights.[784] Certainly, many broadband providers have the technical tools to conduct deep packet inspection of unencrypted traffic on their networks,[785] and consumer privacy is a paramount concern in the Internet age. Nevertheless, we believe that broadband monitoring concerns are adequately addressed by the rules we adopt today, so we decline to alter this provision. This rule is

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[777] *See* 47 U.S.C. § 1002(a).

[778] *See* 50 U.S.C. §§ 1802(a)(4), 1804, 1805(c)(2).

[779] *See* 18 U.S.C. §§ 2518, 2705.

[780] Southern Company Services Comments at 5; Utilities Telecom Council Reply at 3–7.

[781] *See supra* Section III.C.2.

[782] *2014 Open Internet NPRM*, 29 FCC Rcd at 5578, para. 61.

[783] *2010 Open Internet Order*, 25 FCC Rcd at 17964-65, para. 111.

[784] i2Coalition Comments at 38; Access Comments at 7.

[785] *See* Internet Association Comments at 14; Tumblr Reply at 6-7; *Verizon*, 740 F.3d at 646 ("[B]roadband providers have the technological ability to distinguish and discriminate against certain types of traffic."); *but see* NCTA Comments at 15; ADTRAN Reply at 14.

limited to protecting "*reasonable* efforts . . . to address copyright infringement or other unlawful activity."[786] We retain the discretion to evaluate the reasonableness of broadband providers' practices under this rule on a case-by-case basis. Consumers also have many tools at their disposal to protect their privacy against deep packet inspection—including SSL encryption, virtual private networks, and routing methods like TOR.[787] Further, the complaint processes we adopt today add to these technical methods and advance consumer interests in this area.[788]

IV. DECLARATORY RULING: CLASSIFICATION OF BROADBAND INTERNET ACCESS SERVICES

306. The *Verizon* court upheld the Commission's use of section 706 as a substantive source of legal authority to adopt open Internet protections. But it held that, "[g]iven the Commission's still-binding decision to classify broadband providers . . . as providers of 'information services,'" open Internet protections that regulated broadband providers as common carriers would violate the Act.[789] Rejecting the Commission's argument that broadband providers only served retail consumers, the *Verizon* court went on to explain that "broadband providers furnish a service to edge providers, thus undoubtedly functioning as edge providers' 'carriers,'" and held that the 2010 no-blocking and no-unreasonable discrimination rules impermissibly "obligated [broadband providers] to act as common carriers."[790]

307. The *Verizon* decision thus made clear that section 706 affords the Commission with substantive authority and that open Internet protections are within the scope of that authority. And this Order relies on section 706 for the open Internet rules. But, in light of *Verizon*, absent a classification of broadband providers as providing a "telecommunications service," the Commission may only rely on section 706 to put in place open Internet protections that steer clear of what the court described as common carriage *per se* regulation.

308. Taking the *Verizon* decision's implicit invitation, we revisit the Commission's classification of the retail broadband Internet access service as an information service[791] and clarify that

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[786] *See supra* para. 304 (emphasis added).

[787] i2Coalition Comments at 38.

[788] *See supra* Section III.E.3.

[789] *Verizon*, 740 F.3d at 650.

[790] *Id.* at 653.

[791] The Commission has previously classified cable modem Internet access service, wireline broadband Internet access service, and Broadband over Power Line (BPL)-enabled Internet access service as information services. The Commission has referred to these services as "wired" broadband Internet access services. *See United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband Over Power Line Internet Access Service as an Information Service*, WC Docket No. 06-10, Memorandum Opinion and Order, 21 FCC Rcd 13281, 13281-82, paras. 1-2 (2006) (*BPL-Enabled Broadband Order*); *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14863-65, 14909-12 paras. 14-17, 103-06 (2005) (*Wireline Broadband Classification Order* and *Broadband Consumer Protection Notice*), *aff'd sub nom. Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007) (*Time Warner*); *Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4819-39, paras. 33-69 (2002) (*Cable Modem Declaratory Ruling*), *aff'd sub nom. Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 978 (2005). The Commission has also previously classified "wireless" broadband Internet access, which it defined as a service that "uses spectrum, wireless facilities and wireless technologies to provide subscribers with high-speed (broadband) Internet access capabilities, . . . whether offered

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this service encompasses the so-called "edge service." Based on the updated record, we conclude that retail broadband Internet access service is best understood today as an offering of a "telecommunications service."[792]

309. Below we discuss the history of the classification of broadband Internet access service, describe our rationale for revisiting that classification, and provide a detailed explanation of our reclassification of broadband Internet access service.

A. History of Broadband Internet Classification

310. Congress created the Commission "[f]or the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of the national defense, [and] for the purpose of promoting safety of life and property through the use of wire and radio communication."[793] Section 2 of the Communications Act grants the Commission jurisdiction over "all interstate and foreign communication by wire or radio."[794] As the Supreme Court explained in the radio context, Congress charged the Commission with "regulating a field of enterprise the dominant characteristic of which was the rapid pace of its unfolding" and therefore intended to give the Commission sufficiently "broad" authority to address new issues that arise with respect to "fluid and dynamic" communications technologies.[795] No one disputes that Internet access services are within the Commission's subject-matter jurisdiction and historically have been supervised by the Commission.[796]

311. *The Computer Inquiries.* In 1966, the Commission initiated its *Computer Inquiries* "to ascertain whether the services and facilities offered by common carriers are compatible with the present and anticipated communications requirements of computer users."[797] In the decision known as *Computer I*, the Commission required "maximum separation" between large carriers that offered data transmission services subject to common carrier requirements and their affiliates that sold data processing services.[798]

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using mobile, portable, or fixed technologies," as information services. *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No. 07-53, Declaratory Ruling, 22 FCC Rcd 5901, 5909-10, para. 22 (2007) (*Wireless Broadband Classification Order*).

[792] As discussed in greater detail below, our classification decision arises from our reconsideration of past interpretations and applications of the Act. We thus conclude that the classification decisions in this Order appropriately apply only on a prospective basis. *See, e.g.*, *Verizon v. FCC*, 269 F.3d 1098 (D.C. Cir. 2001) ("In a case in which there is a substitution of new law for old law that was reasonably clear, a decision to deny retroactive effect is uncontroversial.") (internal quotations omitted).

[793] 47 U.S.C. § 151.

[794] *Id.* § 152(a).

[795] *National Broadcasting Co., Inc. v. United States*, 319 U.S. 190, 219-20 (1943). The Court added that "[i]n the context of the developing problems to which it was directed, the Act gave the Commission . . . expansive powers . . . [and] a comprehensive mandate." *Id*.

[796] *See Comcast*, 600 F.3d at 646-47.

[797] *Regulatory & Policy Problems Presented by the Interdependence of Computer & Comm. Servs.*, Docket No. 16979, Notice of Inquiry, 7 FCC 2d 11, 11-12, para. 2 (1966) (*Computer I Notice of Inquiry*) (subsequent history omitted).

[798] *Regulatory & Policy Problems Presented by the Interdependence of Computer & Comm. Servs.*, Docket No. 16979, Final Decision and Order, 28 FCC 2d 267, 270, 275, paras. 12, 24 (1971) (*Computer I Final Decision*), *aff'd sub nom. GTE Servs. Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973), *decision on remand*, 40 FCC 2d 293 (1972).

Refining this approach, in *Computer II* and *Computer III* the Commission required telephone companies that provided "enhanced services" over their own transmission facilities to separate out and offer on a common carrier basis the transmission component underlying their enhanced services.[799]

312. Commenters disagree about the significance of the *Computer Inquiries*.[800] We believe the *Computer Inquiries* are relevant in at least two important respects. First, in *Computer II* the Commission distinguished "basic" from "enhanced" services, a distinction that Congress embraced when it adopted the Telecommunications Act of 1996. Basic services offered on a common carrier basis were subject to Title II; enhanced services were not.[801] When Congress enacted the definitions of "telecommunications service" and "information service" in the Telecommunications Act of 1996,[802] it substantially incorporated the "basic" and "enhanced" service classifications.[803] Because the statutory definitions substantially incorporated the Commission's terminology under the *Computer Inquiries*, Commission decisions regarding the distinction between basic and enhanced services—in particular, decisions regarding features that are "adjunct to basic" services—are relevant in this proceeding.[804]

313. Second, the *Computer Inquiries* disprove the claim that the Commission has never before mandatorily applied Title II to the transmission component of Internet access service.[805] From 1980 to 2005, facilities-based telephone companies were obligated to offer the transmission component of their

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[799] *Amendment of Section 64.702 of the Comm'n's Rules & Regs, Second Computer Inquiry*, Final Decision, 77 FCC 2d 384, 417-35, 461-75, paras. 86-132, 201-31 (1980) (*Computer II Final Decision*), *aff'd sub nom. Computer & Commc'ns Indus. Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982); *Amendment of Section 64.702 of the Comm'n's Rules & Regs.* (*Third Computer Inquiry*), CC Docket No. 85-229, Phase I, Report and Order, 104 FCC 2d 958, para. 4 (1986) (*Computer III Phase I Order*), *recon*., 2 FCC Rcd 3035 (1987) (*Computer III Phase I Reconsideration Order*), *further recon.*, 3 FCC Rcd 1135 (1988) (*Computer III Phase I Further Reconsideration Order*), *second further recon.*, 4 FCC Rcd 5927 (1989) (*Computer III Phase I Second Further Reconsideration Order*); *Phase I Order and Phase I Recon. Order vacated sub nom. California v. FCC*, 905 F.2d 1217 (9th Cir. 1990) (*California I*); CC Docket No. 85-229, Phase II, 2 FCC Rcd 3072 (1987) (*Computer III Phase II Order*), *recon*., 3 FCC Rcd 1150 (1988) (*Computer III Phase II Reconsideration Order*), *further recon.*, 4 FCC Rcd 5927 (1989) (*Phase II Further Reconsideration Order*); *Phase II Order vacated*, *California I*, 905 F.2d 1217 (9th Cir. 1990); *Computer III Remand Proceeding*, CC Docket No. 90-368, 5 FCC Rcd 7719 (1990) (*ONA Remand Order*), *recon.*, 7 FCC Rcd 909 (1992), *pets. for review denied sub nom. California v. FCC*, 4 F.3d 1505 (9th Cir. 1993) (*California II*); *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, CC Docket No. 90-623, 6 FCC Rcd 7571 (1991) (*BOC Safeguards Order*), *BOC Safeguards Order vacated in part and remanded sub nom. California v. FCC*, 39 F.3d 919 (9th Cir. 1994) (*California III*), *cert. denied*, 514 U.S. 1050 (1995); *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services*, CC Docket No. 95-20, Notice of Proposed Rulemaking, 10 FCC Rcd 8360 (1995) (*Computer III Further Remand Notice*), Further Notice of Proposed Rulemaking, 13 FCC Rcd 6040 (1998) (*Computer III Further Remand Further Notice*); Report and Order, 14 FCC Rcd 4289 (1999) (*Computer III Further Remand Order*), *recon*., 14 FCC Rcd 21628 (1999) (*Computer III Further Remand Reconsideration Order*).

[800] *Compare* AT&T Comments at 46-47 *with* i2coalition Comments at 17-18; Public Knowledge Comments at 77.

[801] *Computer II Final Decision*, 77 FCC 2d at 428-32, paras. 115-23.

[802] Telecommunications Act of 1996, Pub. L. No. 104-104, § 3(a)(2), 110 Stat. 56, 58-60 (1996), *codified at* 47 U.S.C. §§ 153(24), 153(50), 153(53).

[803] *Brand X*, 545 U.S. at 977; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14871, para. 29.

[804] The Commission's definition of "adjunct to basic" services has been instrumental in determining which functions fall within the "telecommunications systems management" exception to the "information service" definition. *See infra* paras. 366-367.

[805] As discussed below, a large number of rural local exchange carriers (LECs) have also chosen to offer broadband transmission service as a telecommunications service subject to the provisions of Title II. *See infra* para. 425.

enhanced service offerings—including broadband Internet access service offered via digital subscriber line (DSL)—to unaffiliated enhanced service providers on nondiscriminatory terms and conditions pursuant to tariffs or contracts governed by Title II.[806] There is no disputing that until 2005, Title II applied to the transmission component of DSL service.[807]

314. *Prior Classification Decisions*. Several commenters, as well as the dissenting statements, claim that an unbroken line of Commission and court precedent, dating back to the *Stevens Report* in 1998,[808] supports the classification of Internet access service as an information service, and that this classification is effectively etched in stone.[809] These commenters ignore not only the Supreme Court but our precedent demonstrating that the relevant statutory definitions are ambiguous, and that classifying broadband Internet access service as a telecommunications service is a permissible interpretation of the Act. Indeed, several of the most vocal opponents of reclassification previously argued that the Commission not only may, but should, classify the transmission component of broadband Internet access service as a telecommunications service.[810]

315. To begin with, these commenters misconstrue the scope of the *Stevens Report*, which was a report to Congress concerning the implementation of universal service mandates, and not a binding Commission Order classifying Internet access services. Moreover, when the Commission issued that report, in 1998, broadband Internet access service was at "an early stage of deployment to residential customers" and constituted a tiny fraction of all Internet connections.[811] Virtually all households with

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[806] *See Computer II Final Decision*, 77 FCC 2d at 475, para. 231; *see also Wireline Broadband Classification Order*, 20 FCC Rcd at 14866-68, para. 24.

[807] *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14858, para. 5 ("Facilities-based wireline broadband Internet access service providers are no longer required to separate out and offer the wireline broadband transmission component . . . of wireline broadband Internet access services as a stand-alone telecommunications service under Title II. . . .").

[808] *Federal-State Joint Board on Universal Servic*e, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501 (1998) (*Stevens Report*).

[809] *See, e.g.*, ACA Comments at 55-56 (citing the *Stevens Report*); AT&T Comments at 41-44.

[810] *See, e.g.*, Verizon Comments, GN Docket No. 00-185 at 2 (Dec. 1, 2000) ("The Act defines residential broadband access—whether provided by a local telephone company or a cable operator—as a telecommunications service subject to 'common carrier' regulation."); Verizon Reply, GN Docket No. 00-185 at 18 (Jan. 10, 2001) (explaining that cable operators are "providing a telecommunications service by making available to the public a transparent, unenhanced transmission path that customers can use to reach any Internet service provider or destination on the Internet from their homes"); Qwest Comments, GN Docket No. 00-185 at 2-3 (Dec. 1, 2000) ("[T]he transport portion of cable modem service is a telecommunications service under the 1996 Act."). Contemporaneously, Verizon and the United States Telecom Association argued in the *Gulf Power* litigation before the Supreme Court that cable modem service includes a telecommunications service. *See* Amicus Brief of United States Telecom Ass'n and Verizon in *National Cable Television Ass'n v. Gulf Power Co.*, Nos. 00-832, 00-833, 2001 WL 345191, *22 (2001) ("[C]able-delivered high-speed Internet access does not fall within the Communications Act's definition of an 'information service' . . . . Cable operators, of course, like DSL-providing telephone companies, may offer customers an ISP service, which is an 'information service.' . . . But they provide that service *along with* their telecommunications service, and, as the Commission's orders establish, the two services are statutorily distinct and cannot be conflated.") (emphasis in original) (citations omitted).

[811] *See Inquiry Concerning the Deployment of Advanced Telecommunications Services to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398, 2446, para. 91 (1999); Ind. Anal. & Tech. Div., Wireline Comp. Bur., *Trends in Telephone Service*, 2-12, chart 2.10, 16-3, Tbl. 16.1 (Aug. 2008).

Internet connections used traditional telephone service to dial-up their Internet Service Provider (ISP), which was typically a separate entity from their telephone company.[812] In the *Stevens Report*, the Commission stated that Internet access service as it was then typically being provided was an "information service."[813] The *Stevens Report* reserved judgment on whether entities that provided Internet access over their own network facilities were offering a separate telecommunications service.[814] The Commission further noted that "the question may not always be straightforward whether, on the one hand, an entity is providing a single information service with communications and computing components, or, on the other hand, is providing two distinct services, one of which is a telecommunications service."[815] A few months after sending the *Stevens Report* to Congress, the Commission concluded that "[a]n end-user may utilize a telecommunications service together with an information service, as in the case of Internet access."[816] In a follow-up order, the Commission affirmed its conclusion that "xDSL-based advanced services constitute telecommunications services as defined by section 3(46) of the Act."[817]

316. The courts addressed the statutory classification of broadband Internet access service in June 2000, when the United States Court of Appeals for the Ninth Circuit held in *AT&T Corp. v. City of*

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[812] *See Stevens Report*, 13 FCC Rcd at 11540, para. 81 ("Internet access providers, typically, own no telecommunications facilities. Rather, in order to provide those components of Internet access services that involve information transport, they lease lines, and otherwise acquire telecommunications, from telecommunications providers.").

[813] *See id.* at 11536, para. 73; *see also Brand X*, 545 U.S. at 978 ("The [*Stevens*] *Report* classified 'non-facilities-based' ISPs—those that do not own the transmission facilities they use to connect the end user to the Internet—solely as information service providers."); *Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities*, GN Docket No. 00-185, Notice of Inquiry, 15 FCC Rcd 19287, 19297 para. 23 & n.45 (2000) (*Cable Modem Notice of Inquiry*) ("We note that the Commission has classified the end user services commonly provided by dial-up ISPs as information services.") (citing the *Stevens Report*).

[814] *Stevens Report*, 13 FCC Rcd at 11530, para. 60 ("[T]he matter is more complicated when it comes to offerings by facilities-based providers."), 11535 n.140 ("We express no view in this Report on the applicability of this analysis to cable operators providing Internet access service."); *see also Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4824, para. 41 ("The [*Stevens Report*] did not decide the statutory classification issue in those cases where an ISP provides an information service over its own transmission facilities."); *Appropriate Framework for Broadband Access to Internet Over Wireline Facilities, Universal Service Obligations of Broadband Providers*, CC Docket No. 02-33, Notice of Proposed Rulemaking, 17 FCC Rcd 3019, 3027-28, para. 14 (2002) (*Wireline Broadband NPRM*) (explaining that the *Stevens Report* recognized "that its analysis focused on ISPs as entities procuring inputs from telecommunications service providers").

[815] *Stevens Report*, 13 FCC Rcd at 11530, para. 60.

[816] *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24030, para. 36 (1998) (*Advanced Services Order*). The *Advanced Services Order* was subject to a voluntary remand requested by the Commission.

[817] *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Order on Remand, 15 FCC Rcd 385, 388 para. 9 (1999) (*Advanced Services Remand Order*). The definition of telecommunications service is now in section 3(53) of the Act, 47 U.S.C. § 153(53). The *Advanced Services Remand Order* was vacated in part by the D.C. Circuit in *WorldCom v. FCC*, 246 F.3d 690 (D.C. Cir. 2001). Specifically, the D.C. Circuit vacated the remand of the Commission's classification of DSL-based advanced services as "telephone exchange service" or "exchange access." "Telephone exchange service" and "exchange access" are relevant in determining whether a provider is a "local exchange carrier." *See* 47 U.S.C. §§ 153(32) (defining "local exchange carrier"), (20) (defining "exchange access"), (54) (defining "telephone exchange service"). It has no bearing on the classification of a particular service offering as a telecommunications or information service under the Act. As such, the further history of the *Advanced Services Remand Order* is inapposite to the Commission's discussion of telecommunications and information services in that Order.

Portland that cable modem service is a telecommunications service to the extent that the cable operator "provides its subscribers Internet transmission over its cable broadband facility," and an information service to the extent the operator acts as a "conventional" ISP.[818] The Ninth Circuit's decision thus put cable companies' broadband transmission service on a regulatory par with DSL transmission service.[819]

317. Three months later, the Commission issued the *Cable Modem Notice of Inquiry*, which sought comment on whether cable modem service should be treated as a telecommunications service under Title II or an information service subject to Title I.[820] In response, the Bell Operating Companies (BOCs) unanimously argued that the Commission lawfully could determine that cable modem service includes a telecommunications service. Verizon and Qwest argued that the transmission component of cable modem service is a telecommunications service.[821] SBC Communications and BellSouth (both now part of AT&T) argued that the Commission should classify cable modem service as an integrated information service subject to Title I, but acknowledged that the Commission could lawfully find that cable modem service includes both a telecommunications service and an information service.[822] Verizon, SBC, and BellSouth also agreed that the Commission could adopt a "middle ground" legal framework by finding that cable modem service is, in part, a telecommunications service, but grant relief from pricing and tariffing obligations by either declaring all providers of broadband Internet access service to be nondominant or by forbearing from enforcing those obligations.[823]

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[818] *AT&T Corp. v. City of Portland*, 216 F.3d 871, 877-79 (9th Cir. 2000) (*City of Portland*). *But see Gulf Power Co. v. FCC*, 208 F.3d 1263, 1275-78 (11th Cir. 2000) (holding that Internet access service is neither a cable service nor a telecommunications service), *rev'd on other grounds sub nom. Nat'l Cable & Telecomms. Ass'n v. Gulf Power Co.*, 534 U.S. 327 (2002); *MediaOne Group, Inc. v. County of Henrico*, 97 F. Supp. 2d 712, 715 (E.D. Va. 2000) (concluding that cable modem service is a cable service), *aff'd on other grounds*, 257 F.3d 356 (4th Cir. 2001).

[819] In 2001, SBC Communications and BellSouth acknowledged the significance of the *Computer Inquiries*, the *Advanced Services Order*, and the Ninth Circuit's decision in *City of Portland*: "The Commission currently views the DSL-enabled transmission path underlying incumbent LEC broadband Internet services as a 'telecommunications service' under the Act. As the Ninth Circuit recognized, the exact same logic applies to cable broadband: 'to the extent that [a cable ISP] provides its subscribers Internet transmission over its cable broadband facility, it is providing a telecommunications service as defined in the Communications Act.'" SBC and BellSouth Reply, GN Docket No. 00-185, at 19 (filed Jan. 10, 2001) (quoting *City of Portland*, 216 F.3d at 878) (footnote omitted); *see also id.* at 19-20 & n.68 (arguing that "cable broadband (like DSL)" is "one type of telecommunications service") (citing the *Advanced Services Order*). SBC subsequently acquired AT&T and BellSouth to form what is now AT&T.

[820] 15 FCC Rcd at 19293, para. 15.

[821] *See supra* note 810.

[822] *See* SBC and BellSouth Comments, GN Docket No. 00-185, at 12 (filed Dec. 1, 2000) (arguing that classifying "the underlying broadband data transmission" as a Title II service "will survive review in courts"); *id.*at 26 ("The Commission has statutory authority to impose Title II regulations on cable modem providers."); SBC and BellSouth Reply, GN Docket No. 00-185, at 13 (filed Jan. 10, 2001) ("[T]he Commission *may* resolve this question by concluding that cable Internet service providers do in fact offer both an 'information service' subject to Title I and a 'telecommunications service' subject to Title II.") (emphasis in original); *id.* at 20 ("[T]he plain fact is that cable broadband service can be—and often is—used as a pure transport service, whatever other incidents may be bundled with it. A cable-modem subscriber is free to use the connection for nothing but noncable e-mail, for example, or for downloading content from non-cable (e.g., Disney or MSN) sites.").

[823] *See* Verizon Comments, GN Docket No. 00-185, at 26 (filed Dec. 1, 2000) ("[T]he Commission could maintain a nondiscrimination obligation on *both* cable operators and ILECs but eliminate pricing and tariffing regulation for broadband access services.") (emphasis in original); SBC and BellSouth Comments, GN Docket No. 00-185, at 38-42 (arguing that the Commission "can opt for a middle-ground of less burdensome regulation under Title II" by declaring "all broadband Internet providers to be nondominant carriers, subject to minimal tariff and notice

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318. In March 2002, the Commission exercised its authority to interpret ambiguous language in the Act and addressed the classification of cable modem service in the *Cable Modem Declaratory Ruling*. The Commission stated that "[t]he Communications Act does not clearly indicate how cable modem service should be classified or regulated."[824] Based on a factual record that had been compiled at that time, the Commission described cable modem service as "typically includ[ing] many and sometimes all of the functions made available through dial-up Internet access service, including content, e-mail accounts, access to news groups, the ability to create a personal web page, and the ability to retrieve information from the Internet."[825] The Commission noted that cable modem providers often consolidated these functions "so that subscribers usually do not need to contract separately with another Internet access provider to obtain discrete services or applications."[826]

319. The Commission identified a portion of cable modem service as "Internet connectivity," which it described as establishing a physical connection to the Internet and operating or interconnecting with the Internet backbone, and sometimes including protocol conversion, Internet Protocol (IP) address number assignment, DNS, network security, caching, network monitoring, capacity engineering and management, fault management, and troubleshooting.[827] The *Ruling* also noted that "[n]etwork monitoring, capacity engineering and management, fault management, and troubleshooting are Internet access service functions that . . . serve to provide a steady and accurate flow of information between the cable system to which the subscriber is connected and the Internet."[828] The Commission distinguished these functions from "Internet applications provided through cable modem services," including "e-mail, access to online newsgroups, and creating or obtaining and aggregating content," "home pages," and "the ability to create a personal web page."[829]

320. The Commission found that cable modem service was "an offering . . . which combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications."[830] The Commission further concluded that, "as it [was] currently offered,"[831] cable modem service as a whole met the statutory definition of "information service" because its components were best viewed as a "single, integrated service that enables the subscriber to utilize Internet access service," with a telecommunications component that was "not . . . separable from the data processing capabilities of the service."[832] Significantly, the Commission did not address whether DNS or any other features of cable modem service fell within the telecommunications

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requirements" and by granting forbearance). Cable operators generally argued that the Commission should classify cable modem service as either a cable service or an information service, but not as a telecommunications service. *See, e.g.*, Comcast Comments, GN Docket No. 00-185, at 11-18 (filed Dec. 1, 2000); AT&T Comments, GN Docket No. 00-185, at 6-20 (filed Dec. 1, 2000); Cox Comments, GN Docket No. 00-185, at 26-40 (filed Dec. 1, 2000).

[824] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4819, para. 32.

[825] *Id.* at 4804, para. 10 (footnotes omitted).

[826] *Id.* at 4806, para. 11 (footnotes omitted). The Commission defined cable modem service as "a service that uses cable system facilities to provide residential subscribers with high-speed Internet access, as well as many applications or functions that can be used with high-speed Internet access." *Id.* at 4818-19, para. 31.

[827] *Id.* at 4809-11, paras. 16-17 (citations omitted).

[828] *Id.* at 4810-11, para. 17 (citations omitted).

[829] *Id.* at 4811, para. 18 (citation omitted).

[830] *Id.* at 4822, para. 38.

[831] *Id.* at 4802, para. 7.

[832] *Id.* at 4823, paras. 38-39.

systems management exception to the definition of "information service"[833] as there was no reason to do so. The *Cable Modem Declaratory Ruling* also included a notice of proposed rulemaking seeking comment on, among other things, whether the Commission should require cable operators to give unaffiliated broadband Internet access service providers access to cable broadband networks.[834]

321. In October 2003, the United States Court of Appeals for the Ninth Circuit vacated the Commission's finding that cable modem service is an integrated information service.[835] The court concluded that it was bound by the prior decision in *City of Portland* that "the transmission element of cable broadband service constitutes telecommunications service under the terms of the Communications Act."[836]

322. In 2005, the Supreme Court reversed the Ninth Circuit's decision and upheld the *Cable Modem Declaratory Ruling* in *Brand X*.[837] The Court held that the word "offering" in the Communications Act's definitions of "telecommunications service" and "information service" is ambiguous, and that the Commission's finding that cable modem service is a functionally integrated information service was a permissible, though perhaps not the best, interpretation of the Act.[838]

323. Following *Brand X*, the Commission issued the *Wireline Broadband Classification Order*, which applied the "information services" classification at issue in the *Cable Modem Declaratory Ruling* to facilities-based wireline broadband Internet access services as well and eliminated the resulting regulatory asymmetry between cable companies and telephone companies offering wired Internet access service via DSL and other facilities.[839] The *Wireline Broadband Classification Order* based this decision on a finding that "providers of wireline broadband Internet access service offer subscribers the ability to run a variety of applications" that fit the definition of information services, including those that enable access to email and the ability to establish home pages.[840] The Commission therefore concluded that "[w]ireline broadband Internet access service, like cable modem service, is a functionally integrated, finished service that inextricably intertwines information-processing capabilities with data transmission such that the consumer always uses them as a unitary service."[841] The Commission also eliminated the *Computer Inquiry* requirements for wireline Internet access service.[842] In 2006, the Commission issued the *BPL-Enabled Broadband Order*, which extended the information service classification to Internet access service provided over power lines.[843]

324. Subsequently, in 2007 the Commission released the *Wireless Broadband Classification Order*, which determined that wireless broadband Internet access service was likewise an information

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[833] *See* 47 U.S.C. § 153(24).

[834] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4839-41, paras. 72-74.

[835] *Brand X Internet Services v. FCC*, 345 F.3d 1120, 1132 (9th Cir. 2003).

[836] *Brand X*, 545 U.S. at 1129.

[837] *See Brand X*, 545 U.S. 967.

[838] *Id*. at 986-1000.

[839] *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14863-65, paras. 14-17, 14909-12, paras. 103-06.

[840] *Id.* at 14860, para. 9.

[841] *Id.*

[842] *Id.* at 14875-98, paras. 41-85.

[843] *See BPL-Enabled Broadband Order*, 21 FCC Rcd at 13281-82, paras. 1-2.

service under the Communications Act.[844] The *Wireless Broadband Classification Order* also found that although "the transmission component of wireless broadband Internet access service is 'telecommunications' . . . the offering of the telecommunications transmission component as part of a functionally integrated Internet access service offering is not 'telecommunications service' under section 3 of the [Communications] Act."[845]

325. The *Wireless Broadband Classification Order* also considered the application of section 332 of Title III to wireless broadband Internet access service and concluded that "mobile wireless broadband Internet access service does not meet the definition of 'commercial mobile service' within the meaning of section 332 of the Act as implemented by the Commission's CMRS rules because such broadband service is not an 'interconnected service,' as defined in the Act and the Commission's rules."[846]

326. In 2010, the D.C. Circuit rejected the Commission's attempt to enforce open Internet principles based on the Commission's Title I ancillary authority in *Comcast v. FCC*.[847] Following *Comcast*, the Commission issued a Notice of Inquiry (*Broadband Classification NOI*) that sought comment on the appropriate approach to broadband policy in light of the D.C. Circuit's decision.[848] Shortly thereafter, the Commission released the *2010 Open Internet Order*. The 2010 *Order* was based in part on a revised understanding of the Commission's Title I authority—as well as a variety of other statutory provisions including section 706—and was again challenged before the D.C. Circuit in *Verizon v. FCC*.[849] Although the *Verizon* court accepted the Commission's reinterpretation of section 706 as an independent grant of legislative authority over broadband services, the court nonetheless vacated the no-blocking and antidiscrimination provisions of the *Order* as imposing *de facto* common carrier status on providers of broadband Internet access service in violation of the Commission's classification of those services as information services.[850]

327. In response to the *Verizon* decision, the Commission released a *Notice of Proposed Rulemaking* (*NPRM*) seeking public input on the "best approach to protecting and promoting Internet openness."[851] Among other things, the *2014 Open Internet NPRM* asked for discussion of the proper legal authority on which to base open Internet rules.[852] The Commission proposed to rely on section 706 of the Telecommunications Act of 1996, but at the same time stated that it would "seriously consider the use of Title II of the Communications Act as the basis for legal authority."[853] The *NPRM* sought comment on the benefits of both section 706 and Title II, and emphasized its recognition that "both section 706 and

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[844] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5901-02, para. 1.

[845] *Id*.

[846] *Id*. at 5916, para. 42.

[847] *Comcast*, 600 F.3d at 661.

[848] *Framework for Broadband Internet Service*, GN Docket No. 10-127, Notice of Inquiry, 25 FCC Rcd 7866 (2010) (*Broadband Classification NOI*).

[849] *Verizon*, 740 F.3d at 635-42.

[850] *Id.* at 635-42, 656-59. The Court also found that that authority did not allow the Commission to subject information services or providers of private mobile services to treatment as common carriers. *Id.* at 650 (citing 47 U.S.C. § 153(51) and 47 U.S.C. § 332(c)(2)).

[851] *2014 Open Internet NPRM*, 29 FCC Rcd at 5563, para. 4.

[852] *Id*.

[853] *Id.*

Title II are viable solutions."[854]

B. Rationale for Revisiting the Commission's Classification of Broadband Internet Access Services

328. We now find it appropriate to revisit the classification of broadband Internet access service as an information service. The Commission has steadily and consistently worked to protect the open Internet for the last decade, starting with the adoption of the *Internet Policy Statement* up through its recent *2014 Open Internet NPRM* following the D.C. Circuit's *Verizon* decision.[855] Although the *Verizon* court accepted the Commission's interpretation of section 706 as an independent grant of authority over broadband services, it nonetheless vacated the no-blocking and antidiscrimination provisions of the *Open Internet Order*.[856] As the *Verizon* decision explained, to the extent that conduct-based rules remove broadband service providers' ability to enter into individualized negotiations with edge providers, they impose *per se* common carrier status on broadband Internet access service providers, and therefore conflict with the Commission's prior designation of broadband Internet access services as information services.[857] Thus, absent a finding that broadband providers were providing a "telecommunications service," the D.C. Circuit's *Verizon* decision defined the bounds of the Commission's authority to adopt open Internet protections to those that do not amount to common carriage.

329. The *Brand X* Court emphasized that the Commission has an obligation to consider the wisdom of its classification decision on a continuing basis.[858] An agency's evaluation of its prior determinations naturally includes consideration of the law affecting its ability to carry out statutory policy objectives.[859] As discussed above, the record in the *Open Internet* proceeding demonstrates that broadband providers continue to have the incentives and ability to engage in practices that pose a threat to Internet openness, and as such, rules to protect the open nature of the Internet remain necessary.[860] To protect the open Internet, and to end legal uncertainty, we must use multiple sources of legal authority to protect and promote Internet openness, to ensure that the Internet continues to grow as a platform for competition, free expression, and innovation; a driver of economic growth; and an engine of the virtuous cycle of broadband deployment, innovation, and consumer demand. Thus, we now find it appropriate to examine how broadband Internet access services are provided today.

330. Changed factual circumstances cause us to revise our earlier classification of broadband Internet access service based on the voluminous record developed in response to the *2014 Open Internet NPRM*. In the 2002 *Cable Modem Declaratory Ruling*, the Commission observed that "the cable modem service business is still nascent, and the shape of broadband deployment is not yet clear. Business

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[854] *Id.*

[855] *See Internet Policy Statement*, 20 FCC Rcd 14986; *2014 Open Internet NPRM*, 29 FCC Rcd 5561; *Verizon*, 740 F.3d 623.

[856] *Verizon*, 740 F.3d at 635-42, 655-59.

[857] *Id.* at 650-59.

[858] *Brand X*, 545 U.S. at 981-82.

[859] *See Smiley v. Citibank (South Dakota), N. A.*, 517 U.S. 735, 741 (1996) (rejecting argument that deference should be withheld because regulation was prompted by litigation); *Mayo Foundation for Medical Educ. and Research v. U.S.*, 562 U.S. 44, 131 S. Ct 704, 712-13 (2011) (explaining that in *United Dominion Industries, Inc. v. U.S.*, 532 U.S. 822, 838 (2001), the Supreme Court "expressly invited the Treasury Department to 'amend its regulations' if troubled by the consequences of our resolution of the case").

[860] *See supra* Section III.B.

relationships among cable operators and their service offerings are evolving."[861] However, despite the rapidly changing market for broadband Internet access services, the Commission's decisions classifying broadband Internet access service are based largely on a factual record compiled over a decade ago, during this early evolutionary period.[862] The premises underlying that decision have changed. As the record demonstrates and we discuss in more detail below, we are unable to maintain our prior finding that broadband providers are offering a service in which transmission capabilities are "inextricably intertwined" with various proprietary applications and services. Rather, it is more reasonable to assert that the "indispensable function" of broadband Internet access service is "the connection link that in turn enables access to the essentially unlimited range of Internet-based services."[863] This is evident, as discussed below, from: (1) consumer conduct, which shows that subscribers today rely heavily on third-party services, such as email and social networking sites, even when such services are included as add-ons in the broadband Internet access provider's service; (2) broadband providers' marketing and pricing strategies, which emphasize speed and reliability of transmission separately from and over the extra features of the service packages they offer; and (3) the technical characteristics of broadband Internet access service. We also note that the predictive judgments on which the Commission relied in the *Cable Modem Declaratory Ruling* anticipating vibrant intermodal competition for fixed broadband cannot be reconciled with current marketplace realities.[864]

C. Classification of Broadband Internet Access Service

331. In this section, we reconsider the Commission's prior decisions that classified wired and wireless broadband Internet access service as information services,[865] and conclude that broadband Internet access service is a telecommunications service subject to our regulatory authority under Title II of the Communications Act regardless of the technological platform over which the service is offered.[866]

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[861] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4843-44, para. 83.

[862] *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14863, para. 14 ("[L]ike cable modem service . . . wireline broadband Internet access service combines computer processing, information provision, and computer interactivity with data transport, enabling end users to run a variety of applications (e.g., e-mail, web pages, and newsgroups).") (citing the *Cable Modem Declaratory Ruling* and the *Stevens Report*); *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13286, para. 9 (referencing prior classification of cable modem service and wireline broadband Internet access service); *Wireless Broadband Classification Order*, 22 FCC Rcd at 5911, para. 26 (stating that applications run by wireless broadband Internet access users are "identical to those provided by cable modem service, wireline broadband Internet access, or BPL-enabled Internet access" and therefore finding that wireless broadband Internet access service meets the definition of an information service).

[863] CDT Comments at 11; *see also* Vonage Comments at 39 ("The pipe is the essential broadband experience and speed and capacity drive buying decisions."); AARP Comments at v ("When a broadband subscriber uploads video to YouTube, updates their Facebook page, posts on their blog, or shares files, all that is needed from the broadband provider is pure transmission."); Free Press Comments at 68 ("A broadband access provider performs one main function: transmitting Internet Protocol (IP) packets between the addresses of the user's choosing.").

[864] *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14880-81, para. 50 (finding that "a wide variety of competitive and potentially competitive providers and offerings are emerging" in the broadband Internet access services market, and that "an emerging market, like the one for broadband Internet access, is more appropriately analyzed in view of larger trends in the marketplace, rather than exclusively through the snapshot data that may quickly and predictably be rendered obsolete as this market continues to evolve").

[865] *See Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4802, para. 7; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14862-65, 14909-12, paras. 12-17, 102-06; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13281-82, paras. 1-2; *Wireless Broadband Classification Order*, 22 FCC Rcd at 5909-10, para. 22.

[866] A "telecommunications service" is "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used." 47 U.S.C. § 153(53). "Telecommunications" is "the transmission, between or among points specified by the user, of

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We both revise our prior classifications of wired broadband Internet access service and wireless broadband Internet access service, and classify broadband Internet access service provided over other technology platforms. In doing so, we exercise the well-established power of federal agencies to interpret ambiguous provisions in the statutes they administer. The Supreme Court summed up this principle in *Brand X*:

> In *Chevron*, this Court held that ambiguities in statutes within an agency's jurisdiction to administer are delegations of authority to the agency to fill the statutory gap in reasonable fashion. Filling these gaps, the Court explained, involves difficult policy choices that agencies are better equipped to make than courts. If a statute is ambiguous, and the implementing agency's construction is reasonable, *Chevron* requires a federal court to accept the agency's construction of the statute, even if the agency's reading differs from what the court believes is the best statutory interpretation.[867]

332. The Court's application of this *Chevron* test in *Brand X* makes clear our delegated authority to revisit our prior interpretation of ambiguous statutory terms and reclassify broadband Internet access service as a telecommunications service. The Court upheld the Commission's prior information services classification because "the statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering. This leaves federal telecommunications policy in this technical and complex area to be set by the Commission . . . ."[868] Where a term in the Act "admit[s] of two or more reasonable ordinary usages, the Commission's choice of one of them is entitled to deference."[869] The Court concluded, given the "technical, complex, and dynamic" questions that the Commission resolved in the *Cable Modem Declaratory Ruling*, "[t]he Commission is in a far better position to address these questions than we are."[870]

333. Furthermore, reading the *Brand X* majority, concurring, and dissenting opinions together, it is apparent that most, and perhaps all, of the nine Justices believed that it would have been at least permissible under the Act to have classified the transmission service included with wired Internet access service as a telecommunications service. Justice Thomas, writing for the majority, noted that "our conclusion that it is *reasonable* to read the Communications Act to classify cable modem service solely as an 'information service' leaves untouched *Portland's* holding that the Commission's interpretation is not the *best* reading of the statute."[871] Justice Breyer concurred with Justice Thomas, stating that he "believe[d] that the Federal Communications Commission's decision f[e]ll[] within the scope of its statutorily delegated authority," although "perhaps just barely."[872] And in dissent, Justice Scalia, joined

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information of the user's choosing, without change in the form or content of the information as sent and received." *Id.* § 153(50).

[867] *Brand X*, 545 U.S. at 980 (citations omitted); *see also id.* at 989 ("[W]here a statute's plain terms admit of two or more reasonable ordinary usages, the Commission's choice of one of them is entitled to deference.").

[868] *Id.* at 992; *see also id.* at 991 ("[T]he term 'offer' can sometimes refer to a single, finished product and sometimes to the 'individual components in a package being offered' . . . ."); *U.S. Telecom Ass'n v. FCC*, 295 F.3d 1326, 1332 (D.C. Cir. 2002) ("telecommunications carrier" is an ambiguous statutory term); *Virgin Islands Tel. Comp. v. FCC*, 198 F.3d 921, 925-26 (D.C. Cir. 1999) ("telecommunications service" is an ambiguous term).

[869] *Id.* at 989.

[870] *Id.* at 1002-03 (internal citation and quotation marks omitted).

[871] *Id.* at 985-86.

[872] *Id.* at 1003 (Breyer, J., concurring).

by Justices Souter and Ginsburg, found that the Commission had adopted "an implausible reading of the statute"[873] and that "the telecommunications component of cable-modem service retains such ample independent identity" that it could only reasonably be classified as a separate telecommunications service.[874]

334. It is also well settled that we may reconsider, on reasonable grounds, the Commission's earlier application of the ambiguous statutory definitions of "telecommunications service" and "information service."[875] Indeed, in *Brand X*, the Supreme Court, in the specific context of classifying cable modem service, instructed the Commission to reexamine its application of the Communications Act to this service "on a continuing basis":

> [I]f the agency adequately explains the reasons for a reversal of policy, "change is not invalidating, since the whole point of *Chevron* is to leave the discretion provided by the ambiguities of a statute with the implementing agency." "An initial agency interpretation is not instantly carved in stone. On the contrary, the agency . . . must consider varying interpretations and the wisdom of its policy on a continuing basis," for example, in response to changed factual circumstances, or a change in administrations . . . .[876]

335. More recently, in *FCC v. Fox Television Stations, Inc.,* the Supreme Court emphasized that, although an agency must acknowledge that it is changing course when it adopts a new construction of an ambiguous statutory provision, "it need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one . . . ."[877] Rather, it is sufficient that "the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates."[878] We discuss in detail below why our conclusion that broadband Internet access service is a telecommunications service is well within our authority. Having determined that Congress gave the Commission authority to determine the appropriate classification of broadband Internet access service—and having provided sufficient justification of changed factual circumstances to warrant a reexamination of the Commission's prior classification—we find, upon interpreting the relevant statutory terms, that broadband Internet access service, as offered today, includes "telecommunications," and falls within the definition of a "telecommunications service."

1. Scope

336. As discussed below, we conclude that broadband Internet access service is a

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[873] *Id*. at 1005 (Scalia, J., dissenting).

[874] *Id.* at 1008 (Scalia, J., dissenting).

[875] *Id.* at 981; *see also Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 863 (1984) ("An initial agency interpretation is not instantly carved in stone."). *Accord Mary V. Harris Foundation v. FCC*, 776 F.3d 21, 24 (D.C. Cir. 2015) ("What the Commission did in the past is of no moment, however, if its current approach reflects a permissible interpretation of the statute.").

[876] *Brand X*, 545 U.S. at 981 (citations omitted).

[877] *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (interpreting statutory ban on indecent broadcasts).

[878] *Id.*; *see also Verizon*, 740 F.3d at 636-37 ("In the *Open Internet Order*, however, the Commission has offered a reasoned explanation for its changed understanding of section 706(a). . . . In these circumstances . . . we have no basis for saying that the Commission 'casually ignored prior policies and interpretations or otherwise failed to provide a reasoned explanation' for its changed interpretation.").

telecommunications service. We define "broadband Internet access service" as a mass-market[879] retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service.[880] This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence.[881]

337. The term "broadband Internet access service" includes services provided over any technology platform, including but not limited to wire, terrestrial wireless (including fixed and mobile wireless services using licensed or unlicensed spectrum), and satellite.[882] For purposes of our discussion, we divide the various forms of broadband Internet access service into the two categories of "fixed" and "mobile," rather than between "wired" and "wireless" service. With these two categories of services—fixed and mobile—we intend to cover the entire universe of Internet access services at issue in the Commission's prior broadband classification decisions[883] as well as all other broadband Internet access

[879] By mass market, we mean services marketed and sold on a standardized basis to residential customers, small businesses, and other end-user customers such as schools and libraries. "Schools" would include institutions of higher education to the extent that they purchase these standardized retail services. *See* Higher Education and Libraries Comments at 11 (noting that institutions of higher education are not "residential customers" or "small businesses" and uncertainty about whether institutions of higher education (and their libraries) are included in the term "schools" because the term is sometimes interpreted as applying only to K-12 schools). For purposes of this definition, "mass market" also includes broadband Internet access service purchased with the support of the E-rate, and Rural Healthcare programs, as well as any broadband Internet access service offered using networks supported by the Connect America Fund (CAF), but does not include enterprise service offerings or special access services, which are typically offered to larger organizations through customized or individually negotiated arrangements. *See Open Internet Order*, 25 FCC Rcd at 17932, para. 45; *supra* para. 189 & n.464.

[880] As explained above, *see supra* note 27 , our use of the term "broadband" in this Order includes but is not limited to services meeting the threshold for "advanced telecommunications capability."

[881] 47 C.F.R. § 8.11(a); *Open Internet Order*, 25 FCC Rcd at 17932, para. 44; *id.* at 17935, para. 51 (finding that the market and regulatory landscape for dial-up Internet access service differed from broadband Internet access service); *2014 Open Internet NPRM*, 29 FCC Rcd at 5581, para. 54. The *Verizon* decision upheld the Commission's regulation of broadband Internet access service pursuant to section 706 and the definition of "broadband Internet access service" has remained part of the Commission's regulations since adopted in 2010. Certain parties have raised issues in the record regarding the regulatory status of mobile messaging services, e.g., SMS/MMS. *See, e.g.*, Twilio Comments at 7-8. We note that the rules we adopt today prohibit broadband providers from, for example, blocking messaging services that are delivered over a broadband Internet access service. We decline to further address here arguments regarding the status of messaging within our regulatory framework, but instead plan to address these issues in the context of the pending proceeding considering a petition to clarify the regulatory status of text messaging services. *See Wireless Telecommunications Bureau Seeks Comment on Petition for Declaratory Ruling that Text Messaging and Short Codes are Title II Services or Title I Service Subject to Section 202 Non-Discrimination Rule*, WT Docket No. 08-7, Public Notice, 23 FCC Rcd 262 (WTB 2008).

[882] In classifying wireless broadband Internet access as an information service, the Commission excluded broadband provided via satellite from classification. *See Wireless Broadband Classification Order*, 22 FCC Rcd at 5901, n.1. Thus, our action here expressly classifies the service for the first time. We observe that while our classification includes broadband Internet access services provided using capacity over fixed or mobile satellite or submarine cable landing facilities, our classification of these services as telecommunications services or CMRS does not require changes to the authorizations for satellite earth stations, satellite space stations, or submarine cable landing facilities.

[883] *See Wireless Broadband Classification Order*, 22 FCC Rcd at 5909-10, paras. 19, 22 (defining wireless broadband Internet access service as "a service that uses spectrum, wireless facilities and wireless technologies to provide subscribers with high-speed (broadband) Internet access capabilities" and classifying such service—"whether offered using mobile, portable, or fixed technologies"—as an information service); *Cable Modem*

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services offered over other technology platforms that were not addressed by prior classification orders. We also make clear that our classification finding applies to all providers of broadband Internet access service, as we delineate them here, regardless of whether they lease or own the facilities used to provide the service.[884] "Fixed" broadband Internet access service refers to a broadband Internet access service that serves end users primarily at fixed endpoints using stationary equipment, such as the modem that connects an end user's home router, computer, or other Internet access device to the network.[885] The term encompasses the delivery of fixed broadband over any medium, including various forms of wired broadband services (e.g., cable, DSL, fiber), fixed wireless broadband services (including fixed services using unlicensed spectrum), and fixed satellite broadband services. "Mobile" broadband Internet access service refers to a broadband Internet access service that serves end users primarily using mobile stations.[886] Mobile broadband Internet access includes, among other things, services that use smartphones or mobile-network-enabled tablets as the primary endpoints for connection to the Internet.[887] The term also encompasses mobile satellite broadband services.

338. In the *Verizon* opinion, the D.C. Circuit concluded that, in addition to the retail service provided to consumers, "broadband providers furnish a service to edge providers, thus undoubtedly functioning as edge providers 'carriers.'"[888] It was because the court concluded that the Commission had treated this distinct service as common carriage, that it "remand[ed] the case to the Commission for further proceedings consistent with this opinion." [889] We conclude now that the failure of the Commission's analysis was a failure to explain that the "service to edge providers" is subsumed within the promise made to the retail customer of the BIAS service. For the reasons we review herein, the reclassification of BIAS necessarily resolves the edge-provider question as well. In other words, the Commission agrees that a two-sided market exists and that the beneficiaries of the non-consumer side

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Declaratory Ruling, 17 FCC Rcd at 4818-19, para. 31 (stating that cable modem service is a "service that uses cable system facilities to provide residential subscribers with high-speed Internet access, as well as many applications or functions that can be used with high-speed Internet access"); *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860, para. 9 (defining wireline broadband Internet access service as "a service that uses existing or future wireline facilities of the telephone network to provide subscribers with [broadband] Internet access capabilities"); *BPL-Enabled Broadband Order*, 21 FCC Rcd 13281.

[884] The Commission has consistently determined that resellers of telecommunications services are telecommunications carriers, even if they do not own any facilities. *See, e.g.*, *Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290, 7293-94, 7312, paras. 10, 65 (2006), *vacated in part on other grounds sub nom. Qwest Servs. Corp. v. FCC*, 509 F.3d 531 (D.C. Cir. 2007); *NOS Communications, Inc., Affinity Network Inc. and NOSVA Limited Partnership*, EB Docket No. 03-96, Order to Show Cause and Notice of Opportunity for Hearing, 18 FCC Rcd 6952, 6953-54, para. 3 (2003); *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities*, Docket No. 20097, Report and Order, 60 FCC 2d 261, 265 para. 8 (1976) ("[A]n entity engaged in the resale of communications service is a common carrier, and is fully subject to the provisions of Title II of the Communications Act."), *aff'd sub nom. AT&T v. FCC*, 572 F.2d 17 (2d Cir. 1978). Further, as the Supreme Court observed in *Brand X*, "the relevant definitions do not distinguish facilities-based and non-facilities-based carriers." *Brand X*, 545 U.S. at 997.

[885] *2010 Open Internet Order*, 25 FCC Rcd at 17934, para. 49.

[886] *See* 47 U.S.C. § 153(34) ("The term 'mobile station' means a radio-communication station capable of being moved and which ordinarily does move."); *2010 Open Internet Order*, 25 FCC Rcd at 17934, para. 49.

[887] We note that section 337(f)(1) of the Act excludes public safety services from the definition of mobile broadband Internet access service. 47 U.S.C.§ 337(f)(1).

[888] *Verizon*, 740 F.3d at 653.

[889] *Id.* at 659.

either are or potentially could be all edge providers.[890] Because our reclassification decision treats BIAS as a Title II service, Title II applies, as well, to the second side of the market, which is always a part of, and subsidiary to, the BIAS service. The *Verizon* court implicitly followed that analysis when it treated the classification of the retail end user service as controlling with respect to its analysis of the edge service; its conclusion that an edge service could be not be treated as common carriage turned entirely on its understanding that the provision of retail broadband Internet access services had been classified as "information services."[891] The reclassification of BIAS as a Title II service thus addresses the court's conclusion that "the Commission would violate the Communications Act were it to regulate broadband providers as common carriers."[892]

339. Many commenters, while holding vastly different views on our reclassification of BIAS, are united in the view we need not reach the regulatory classification of the service that the *Verizon* court identified as being furnished to the edge.[893] We agree. Our reclassification of the broadband Internet access service means that we can regulate, consistent with the Communications Act, broadband providers to the extent they are "engaged" in providing the broadband Internet access service.[894] As discussed above, a broadband Internet access service provider's representation to its end-user customer that it will transport and deliver traffic to and from all or substantially all Internet endpoints necessarily includes the promise to transmit traffic to and from those Internet end points back to the user.[895] Thus, the so-called "edge service" is secondary, and in support of, the promise made to the end user, and broadband provider

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[890] *Verizon*, 740 F.3d at 653; Technology Policy Institute Comments at 11 (recognizing a two-sided market); CenturyLink Comments at 6 ("A two-sided market approach ensures that the costs of content and applications causing greater bandwidth consumption are ultimately passed on to the subscribers who use those services, ensures that adequate pricing signals are communicated to edge providers and, overall, produces the optimal economic outcome."); *id*. at 5-7; Hance Haney Comments at 9 (recognizing a two-sided broadband market); Cox Comments at 5 (discussing emerging two-sided market arrangements); ACLU Comments at 7 (acknowledging the broadband market as a two-sided market); Bright House Comments at 27-28 (explaining that two-sided markets have long existed under Title II in the provision of long-distance service).

[891] *Verizon*, 740 F.3d at 650.

[892] *Id*.

[893] *See, e.g.*, Letter from Matthew Wood, Policy Director, Free Press to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 3 (filed Feb. 20, 2015) ("Recognition of [an] edge-facing service as a telecom service is decidedly not commanded by the D.C. Circuit's decision in the *Verizon* case."); Letter from Sarah Morris, Open Technology Institute, New America Foundation, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 2 (filed Feb. 20, 2015); Letter from Austin C. Schlick, Director, Communications Law, Google, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 1 (filed Feb. 20, 2015); Letter from Henry G. Hultquist, Vice President, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 7-9 (filed Feb. 18, 2015); Letter from William H. Johnson, Vice President and Associate General Counsel, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 2-3 (filed Oct. 17, 2014) (stating that "the fact that payment for [broadband] service may be split in some fashion between the edge provider and end user does not magically convert the service into two separate offerings"). We thus decline to adopt proposals identifying and classifying a separate service provided to edge providers that were presented in the record, and on which we sought comment, including those by Mozilla, the Center for Democracy and Technology, and Professors Wu and Narechania. *See, e.g.*, *Mozilla's Petition to Recognize Remote Delivery Services in Terminating Access Networks and Classify Such Services Under Title II of the Communications Act*, WC Docket No. 14-28, at 12 (filed May 5, 2014); Tejas Narechania and Tim Wu, *Sender Side Transmission Rules for the Internet*, Fed. Comm. L.J. (forthcoming 2014); Narechania/Wu Apr. 14, 2014 *Ex Parte* Letter. We believe that our actions here adequately address the concerns raised by these proposals, consistent with both law and fact.

[894] 47 U.S.C. § 153(51) (defining "telecommunications carrier").

[895] *See supra* para. 204.

practices with respect to edge providers—including terms and conditions for the transfer and delivery of traffic to (and from) the BIAS subscriber—impact the broadband provider's provision of the Title II broadband Internet access service.[896] For example, where an edge provider attempts to purchase favorable treatment for its traffic (such as through zero rating), that treatment would be experienced by the BIAS subscriber (such as through an exemption of the edge-provider's data from a usage limit) and the impact on the BIAS subscriber, if any, would be assessed under Title II. That is, the legal question before the Commission turns on whether the provision of that service to the edge provider would be inconsistent with the provision of the retail service under Title II. That is because the same data is flowing between end user and edge consumer.[897] In other words, to the extent that it is necessary to examine a separate edge service, that service is simply derivative of BIAS, constitutes the same traffic, and, in any event, fits comfortably within the command that practices provided "in connection with" a Title II service that must themselves be just and reasonable.[898]

340. Broadband Internet access service does not include virtual private network (VPN) services, content delivery networks (CDNs), hosting or data storage services, or Internet backbone services.[899] The Commission has historically distinguished these services from "mass market" services and, as explained in the *2014 Open Internet NPRM*, they "do not provide the capability to transmit data to and receive data from all or substantially all Internet endpoints."[900] We do not disturb that finding here. Finally, we observe that to the extent that coffee shops, bookstores, airlines, private end-user networks

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[896] This is not a novel arrangement. Under traditional contract principles, Party A (a broadband provider) can contract with Party B (a consumer) to provide services to Party C (an edge provider). That the service is being provided to Party C does not, in any way, conflict with the legal conclusion that the terms and conditions under which that service is being provided are governed by the agreement—and here the regulatory framework— between Parties A and B. Most content that flows across the broadband provider's "last-mile" network to the retail consumer does not involve a direct agreement between Parties B and C but, as the *Verizon* court observed, an edge provider, like Amazon, could enter into an agreement with a broadband provider, like Comcast. *See Verizon*, 740 F.3d at 653.

[897] This conclusion does not contradict the economic view that a broadband provider is operating in a two-sided market. *See, e.g.*, *supra* note 893. A newspaper looks the same whether viewed by an advertiser or a subscriber, even though their economic relationship with the newspaper publisher is different. Here the operation of the broadband Internet access service is so intertwined with the edge service so as to compel the conclusion that the BIAS reclassification controls any service that is being provided to an edge provider.

[898] *See* 47 U.S.C. 201(b) ("All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable"); *see also Truth-in-Billing and Billing Format*, CC Docket No. 98-170, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 7492, 7503-06, para. 21-24 (1999) (finding that a carrier's provision of misleading or deceptive billing information "in connection with" a telecommunications service is unjust and unreasonable in violation of section 201(b)); *Empowering Consumers to Prevent and Detect Billing for Unauthorized Charges ("Cramming"); Consumer Information and Disclosure; Truth-in-Billing and Billing and Billing Format*, CG Docket Nos. 11-116, 09-158, CC Docket No. 98-170, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 4436, 4476-4479, paras. 114-122 (2011) (finding that the placement of third-party charges on bills for their own telecommunications services such that they are "often described to look like they are associated with a telecommunications service provided by the carrier" are subject to section 201(b)); *NobelTel LLC, Apparent Liability for Forfeiture*, File No. EB-TCD-12-0000412, Notice of Apparent Liability For Forfeiture, 27 FCC Rcd 11760, 11762-63, para. 6 (2012) (finding that "unfair and **deceptive marketing** practices by interstate common carriers constitute unjust and unreasonable practices under Section 201(b)").

[899] *2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47; *2014 Open Internet NPRM*, 29 FCC Rcd at 5581, para. 58; *see also, e.g.*, Cox Comments at 8, 13-14; Nokia Comments at 11; Verizon Comments at 77-78.

[900] *2014 Open Internet NPRM*, 29 FCC Rcd at 5581-82, para. 58. In classifying broadband Internet access service as a telecommunications service today, the Commission does not, and need not, reach the question of whether and how these services are classified under the Communications Act.

such as libraries and universities, and other businesses acquire broadband Internet access service from a broadband provider to enable patrons to access the Internet from their respective establishments, provision of such service by the premise operator would not itself be considered a broadband Internet access service unless it was offered to patrons as a retail mass market service, as we define it here.[901] Likewise, when a user employs, for example, a wireless router or a Wi-Fi hotspot to create a personal Wi-Fi network that is not intentionally offered for the benefit of others, he or she is not offering a broadband Internet access service, under our definition, because the user is not marketing and selling such service to residential customers, small business, and other end-user customers such as schools and libraries.

2. The Market Today: Current Offerings of Broadband Internet Access Service

341. We begin our analysis by examining how broadband Internet access service was and currently is offered. In the 2002 *Cable Modem Declaratory Ruling*, the Commission observed that "the cable modem service business is still nascent, and the shape of broadband deployment is not yet clear. Business relationships among cable operators and their service offerings are evolving."[902] Despite the rapidly changing market for broadband Internet access services, the Commission's decisions classifying broadband Internet access service are based largely on a factual record compiled over a decade ago, during this early evolutionary period. The record in this proceeding leads us to the conclusion that providers today market and offer consumers separate services that are best characterized as (1) a broadband Internet access service that is a telecommunications service; and (2) "add-on" applications, content, and services that are generally information services.

342. In the past, the Commission has identified a number of ways to determine what broadband providers "offer" consumers. In the *Cable Modem Declaratory Ruling*, for example, the Commission concluded that "the classification of cable modem service turns on the *nature of the functions* that the end user is offered."[903] In the *Wireline Broadband Classification Order*, the Commission noted that "whether a telecommunications service is being provided turns on *what* the entity is 'offering . . . to the public,' and *customers' understanding* of that service."[904] In the *Wireless Broadband Classification Order*, the Commission stated that "[a]s with both cable and wireline Internet access, [the] definition appropriately focuses on the end user's experience, factoring in both the functional characteristics and speed of transmission associated with the service."[905] Similarly, in *Brand X*, both the majority and dissenting opinions examined how consumers perceive and use cable modem service,[906] technical characteristics of the services and how it is provided,[907] and analogies to other services.[908]

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[901] *See 2010 Open Internet Order*, 25 FCC Rcd at 17935, para. 52.

[902] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4843-44, para. 83.

[903] *Id.* at 4822, para. 38 (emphasis added).

[904] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14910, para. 104 (quoting 47 U.S.C. § 153(46)) (citing *Brand X*, 545 U.S. at 989-90) (emphasis added).

[905] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5909, para. 21.

[906] *Brand X*, 545 U.S. at 989-990, 993; *see also id*. at 1005, 1008 (Scalia, J., dissenting).

[907] *Id.* at 990 ("We think that [the transmission component of cable modem service and the finished service] are sufficiently integrated, because '[a] consumer uses the high-speed wire always in connection with the information-processing capabilities provided by Internet access, and because the transmission is a necessary component of Internet access.'"), 991 ("[The entire] question turns not on the language of the Act, but on the factual particulars of

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a. Broadband Internet Access Services at Time of Classification

343. *"Wired" Broadband Services.* The Commission's *Cable Modem Declaratory Ruling* described cable modem service as "typically includ[ing] many and sometimes all of the functions made available through dial-up Internet access service, including content, e-mail accounts, access to news groups, the ability to create a personal web page, and the ability to retrieve information from the Internet, including access to the World Wide Web."[909] The Commission also identified functions provided with cable modem service that it called "Internet connectivity functions."[910] These included establishing a physical connection to the Internet and interconnecting with the Internet backbone, protocol conversion, Internet Protocol address number assignment, domain name resolution through DNS, network security, caching, network monitoring, capacity engineering and management, fault management, and troubleshooting.[911] In addition, the Commission noted that "[n]etwork monitoring, capacity engineering and management, fault management, and troubleshooting are Internet access service functions that . . . serve to provide a steady and accurate flow of information between the cable system to which the subscriber is connected and the Internet."[912] The *Ruling* noted that "[c]omplementing the Internet access functions are *Internet applications* provided *through* cable modem service. These applications include traditional ISP services such as e-mail, access to online newsgroups, and creating or obtaining and aggregating content. The cable modem service provider will also typically offer subscribers a 'first screen' or 'home page' and the ability to create a personal web page."[913] The Commission explained that "[e]-mail, newsgroups, the ability for the user to create a web page that is accessible by other Internet users, and DNS are *applications* that are commonly associated with Internet access service," and that "[t]aken together, they constitute an information service."[914] In the *Wireline Broadband Classification Order*, the Commission found that end users subscribing to wireline broadband Internet access service "*expect to receive* (and pay for) a finished, functionally integrated service that provides access to the Internet."[915]

344. The Commission's subsequent wired broadband classification decisions did not describe wired broadband Internet access services with any greater detail.[916]

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how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance."), 991-92, 998-99; *see also id*. at 1006-07, 1010 (Scalia, J., dissenting).

[908] *Id.* at 990-91; *see also id.* at 1008 (Scalia, J., dissenting).

[909] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4804, para. 10 (footnotes omitted).

[910] *Id.* at 4809-11, para. 17. Earlier, in its 2001 AOL/Time Warner merger order describing the emerging high speed Internet access services offered through cable modems, the Commission found that "Internet access services consist principally of connectivity to the Internet provided to end users." *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner, Inc. and America Online, Inc., Transferors, to AOL Time Warner, Inc., Transferee*, CS Docket No. 00-30, Memorandum Opinion and Order, 16 FCC Rcd 6547, 6572-73, paras. 62, 64 (2001) (describing contracts by cable operators with Road Runner, Excite@Home, and High-Speed Access Corp. to provide such connectivity).

[911] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4809-11, paras. 16-17.

[912] *Id.* at 4810-11, para. 17 (citations omitted).

[913] *Id.* at 4811, para. 18 (emphasis added) (citations omitted).

[914] *Id.* at 4822, para. 38 (emphasis added).

[915] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14910, para. 104.

[916] *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14860, para. 9 (discussing e-mail, websites, newsgroups, ability to create home pages, and "the ability to run a variety of applications"); *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13286, para. 9 ("[The] characteristics of BPL-enabled Internet access service are

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345. *Wireless Broadband Services.* In 2007, the Commission described wireless broadband Internet access service as a service "that uses spectrum, wireless facilities and wireless technologies to provide subscribers with high-speed (broadband) Internet access capabilities."[917] The Commission noted that "many of the mobile telephone carriers that provide mobile wireless broadband service for mobile handsets offer a range of IP-based multimedia content and services—including ring tones, music, games, video clips and video streaming—that are specially designed to work with the small screens and limited keypads of mobile handsets. This content is typically sold through a carrier-branded, carrier-controlled portal."[918]

b. The Growth of Consumer Demand and Market Supply

346. The record in this proceeding reveals that, since we collected information to address the classification of cable modem service over a decade ago, the market for both fixed and mobile broadband Internet access service has changed dramatically. Between December 2000 and December 2013, the number of residential Internet connections with speeds over 200 kbps in at least one direction increased from 5.2 million to 87.6 million.[919] In 2000, only 5 percent of American households had a fixed Internet access connection with speeds of over 200 kbps in at least one direction,[920] as compared to approximately 72 percent of American households with this same connection today.[921] Indeed, as of December 2013, 60 percent of households have a fixed Internet connection with minimum speeds of at least 3 Mbps/768 kbps.[922] Moreover, between December 2009 and December 2013, the number of mobile handsets with a residential data plan with a speed of at least 200 kbps in one direction increased from 43.7 million to 159.2 million, a 265 percent increase.[923] By November 2014, 73.6 percent of the entire U.S. age 13+

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similar to the characteristics that the Commission relied upon in classifying cable modem service and wireline broadband Internet access service as 'information services.'").

[917] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5909, para. 21.

[918] *Id*. at 5908, para. 16 (footnotes omitted).

[919] Industry Analysis Division, Common Carrier Bureau, *High Speed Services for Internet Access: Subscribership as of December 31, 2000* (Aug. 2001) at 6, Tbl. 3; Industry Analysis and Technology Division, Wireline Competition Bureau, *Internet Access Services: Status as of December 31, 2013* at 17, Tbl. 3 (Oct. 2014) (noting that the estimate for 2000 overstates residential connections because the residential data include small business connections before 2005); *see also* John B. Horrigan & Lee Rainie, The Broadband Difference: How Online Behavior Changes with High-Speed Internet Connections at Home, Pew Internet & American Life Project, 8 (2002) ("When the Pew Internet and American Life Project in June 2000 first asked Internet users about the type of home connection they had, 6% of Internet users had a high-speed connection at home.") (*The Broadband Difference*).

[920] Industry Analysis Division, Common Carrier Bureau, *High-Speed Services for Internet Access: Subscribership as of December 31, 2000* at 6, Tbl. 3 (Aug. 2001); U.S. Department of Commerce, *Census Brief, Households and Families: 2000* at 1 (Sept. 2001) (reporting 105.5 million households; 5.2 million subscribers/105.5 households equals approximately 5 percent).

[921] Industry Analysis and Technology Division, Wireline Competition Bureau, *Internet Access Services: Status as of December 31, 2013* at 35, Tbl. 14 (Oct. 2014), http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db1016/DOC-329973A1.pdf.

[922] *See id*. at 34, Tbl. 13.

[923] *See id.* at 17, Tbl. 3; *see also* Industry Analysis and Technology Division, Wireline Competition Bureau, *Internet Access Services: Status as of June 30, 2011* at 82 (June 2012) (explaining the change in mobile reporting and thus our estimates are not directly comparable to estimates reported in earlier reporting periods). In addition, the mobile residential figures may overstate residential handsets because mobile filers report the number of "consumer" handsets that are not billed to a corporate, non-corporate business, government, or institutional customer account,

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population was communicating with smart phones, a figure which has continued to rise rapidly over the past several years.[924] Cisco forecasts that by 2019, North America will have nearly 90 percent of its installed base converted to smart devices and connections, and smart traffic will grow to 97 percent of the total global mobile traffic.[925] In 2013, the United States and Canada were home to almost 260 million mobile subscriptions for smartphones, mobile PCs, tablets, and mobile routers. In 2014, that number was expected to increase by 20 percent, to 300 million subscriptions; by 2020, to 450 million, or a population penetration rate of almost 124 percent.[926] In addition, the explosion in the deployment of Wi-Fi technology in the past few years has resulted in consumers increasingly using that technology to access third party content, applications, and services on the Internet, in connection with either a fixed broadband service or a mobile broadband service.

347. This widespread penetration of broadband Internet access service has led to the development of third-party services and devices and has increased the modular way consumers have come to use them. As more American households have gained access to broadband Internet access service, the market for Internet-based services provided by parties other than broadband Internet access providers has flourished. Consumers' appetite for third-party services has also received a boost from the shift from dial-up to broadband, as a high-speed connection makes the Internet much more useful to consumers.[927] The impact of broadband on consumers' demand for third-party services is evident in the explosive growth of online content and application providers. In early 2003, a year after the *Cable Modem Declaratory Ruling*, there were approximately 36 million websites.[928] Today there are an estimated 900 million.[929] When the Commission assessed the cable modem service market in the *Cable Modem Declaratory Ruling*, the service at issue was offered with various online applications, including e-mail, newsgroups, and the ability to create a web page.[930] The Commission observed that subscribers to cable modem services "usually d[id] not need to contract separately" for "discrete services or applications" such as e-mail.[931] Today, broadband service providers still provide various Internet applications, including e-mail, online storage, and customized homepages, in addition to newer services such as music streaming

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and thus could include handsets for which the subscriber is reimbursed by their employee. *See* FCC Form 477 Filing Instructions at 26, http://transition.fcc.gov/form477/477inst.pdf.

[924] *See* comScore, *comScore Reports November 2014 U.S. Smartphone Subscriber Market Share* (Jan. 8, 2015), http://www.comscore.com/Insights/Market-Rankings/comScore-Reports-November-2014-US-Smartphone-Subscriber-Market-Share.

[925] Cisco, *Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update 2014-2019* at 9-10 (Feb. 3, 2015), http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.pdf.

[926] *See* Ericsson, *Ericsson Mobility Report Appendix: North America*, 4 (Nov. 2014), http://www.ericsson.com/res/docs/2014/emr-november2014-regional-appendices-rnam.pdf.

[927] For example, early studies showed that broadband users are far more likely than dial-up users to go online to seek out news, look for travel information, share computer files with others, create content, and download games and videos. *The Broadband Difference* at 2, 12.

[928] Netcraft, *February 2003 Web Server Survey*, http://news.netcraft.com/archives/2003/02/25/february_2003_web_server_survey.html; *see also* Netcraft, *How many active sites are there?*, http://news.netcraft.com/active-sites (last visited Jan. 5, 2015).

[929] Netcraft, *January 2015 Web Server Survey*, http://news.netcraft.com/archives/category/web-server-survey/ (last visited Jan. 22, 2014).

[930] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4811, para. 18.

[931] *Id.* at 4806, para. 11.

and instant messaging.[932] But consumers are very likely to use their high-speed Internet connections to take advantage of competing services offered by third parties.

348. For example, companies such as Google and Yahoo! offer popular alternatives to the email services provided to subscribers as part of broadband Internet access service packages.[933] According to Experian, Gmail and Yahoo! Mail were among the ten Internet sites most frequently visited during the week of January 17, 2015, with approximately 400 million and 350 million visits respectively.[934] Some parties even advise consumers specifically *not* to use a broadband provider-based email address; because a consumer cannot take that email address with them if he or she switches providers, some assert that using a broadband provider-provided email address results in a disincentive to switch to a competitive provider due to the attendant difficulties in changing an email address.[935] Third-party alternatives are also widely available for other services that may be provided along with broadband Internet access service.[936] For example, firms such as Apple, Dropbox, and Carbonite[937] provide "cloud-based" storage; services like Go Daddy provide website hosting;[938] users rely on companies such as WordPress and Tumblr to provide blog hosting;[939] and firms such as Netvibes and Yahoo! provide

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[932] *See, e.g.*, Comcast Comments at 57-58; AT&T Comments at 49.

[933] *See* Google, *Gmail*, https://mail.google.com (last visited Feb. 15, 2015); Yahoo!, *Yahoo! Mail*, https://mail.yahoo.com (last visited Feb. 15, 2015); *see also* MailChimp, *What Does Your ISP Say About You?* (Nov. 26, 2013), http://blog.mailchimp.com/what-does-your-isp-say-about-you/ (showing that in 2013, the top domains for email addresses were Gmail, Hotmail, Yahoo, and AOL, and that the only broadband provider-based email service to be in the top five was Comcast, whose usage is not in proportion to its market share).

[934] *See* Experian, *Online Consumer Trends*, http://www.experian.com/marketing-services/online-trends.html (last visited Jan. 25, 2015); *see also* CDT Comments at 11 (citing similar Experian data from June 2014). A 2010 Commission study found that of the time Comcast, AT&T, Time Warner Cable, and Verizon Internet subscribers spend using web-based email, 95 percent is spent using third-party services such as Yahoo! Mail and only 5 percent is spent using ISP-provided services (*e.g.*, webmail.verizon.net). *See* Federal Communications Commission, Omnibus Broadband Initiative, *Broadband Performance: OBI Technical Paper No. 4*, at 28 n. 14 (2010) (citing comScore data).

[935] *See, e.g.*, Chris Williams, WideNet Consulting, *NEVER Use Your ISP's Email Address*, http://www.widenetconsulting.com/blog/never-use-your-isps-email-address/ (last visited Feb. 17, 2015); BBapply, *Using ISP-provided Email Addresses – A Bad Idea*, http://bbapply.com/faq/email-alternatives.html (last visited Feb. 17, 2015); Josh McCarty, *Don't Use Your ISP Email Address* (Jul. 25, 2011), http://joshmccarty.com/2011/07/dont-use-your-isp-email-address/ (last visited Feb. 17, 2015); MacMost, *MacMost now 655: Five Reasons Not to Use Your ISP's Email Service* (Jan. 9, 2012), http://joshmccarty.com/2011/07/dont-use-your-isp-email-address/ (last visited Feb. 17, 2015).

[936] DNS, caching, and other services that enable the efficient transmission of data over broadband connections are considered in Section IV.C.3. below.

[937] *See* Apple, *iCloud*, http://www.apple.com/icloud/ (last visited Dec. 31, 2014); Dropbox, *Dropbox – Home*, https://www.dropbox.com/ (last visited Dec. 31, 2014) ("Your stuff, anywhere"); Carbonite, *Carbonite Cloud Backup Services - Online Backup*, http://www.carbonite.com (last visited Dec. 31, 2014).

[938] GoDaddy.com, *GoDaddy – It's Go Time*, http://www.godaddy.com (last visited Dec. 31, 2014); *see also* AARP Comments at iv ("Web hosting is competitively provided, with U.S. broadband providers not even making the top 25 of U.S. web hosting services.") (citing ICANN data); CDT Comments at 12 (noting that "some major broadband providers have ceased to offer free personal web page hosting to their subscribers").

[939] WordPress, *WordPress.com—Create Your New Website for Free*, http://www.wordpress.com (last visited Jan. 5, 2015); Tumblr, *Tumblr*, http://www.tumblr.com (last Jan. 5, 2014).

personalized homepages.[940] GigaNews and Google provide access to newsgroups, while many broadband providers have themselves ceased offering this service entirely.[941]

349. More generally, both fixed and mobile consumers today largely use their broadband Internet access connections to access content and services that are unaffiliated with their broadband Internet access service provider. In this regard, perhaps the most significant trend is the growing popularity of third-party video streaming services. By one estimate, Netflix and YouTube alone account for 50 percent of peak Internet download traffic in North America.[942] Other sites among the most popular in the United States include the search engines Google and Yahoo!;[943] social networking sites Facebook and LinkedIn; e-commerce sites Amazon, eBay and Craigslist; the user-generated reference site Wikipedia; a diverse array of user-generated media sites including Reddit, Twitter, and Pinterest; and news sources such as nytimes.com and CNN.com.[944] Overall, broadband providers themselves operate very few of the websites that broadband Internet access services are most commonly used to access.[945]

350. Thus, as a practical matter, broadband Internet access service is useful to consumers today primarily as a conduit for reaching modular content, applications, and services that are provided by unaffiliated third parties. As the Center for Democracy & Technology puts it, "[t]he service that broadband providers offer to the public is widely understood today, by both the providers and their customers, as the ability to connect to anywhere on the Internet—to any of the millions of Internet endpoints—for whatever purposes the user may choose."[946] Indeed, the ability to transmit data to and from Internet endpoints has become the "one indispensable function" that broadband Internet access service uniquely provides.[947]

c. Marketing

351. That broadband Internet access services today are primarily offerings of Internet connectivity and transmission capability is further evident by how these services are marketed and priced. Commenters cite numerous examples of advertisements that emphasize transmission speed as the

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[940] Netvibes, *Netvibes – Dashboard Everything*, http://www.netvibes.com/en (last visited Jan. 5, 2015); Yahoo, *My Yahoo!*, http://my.yahoo.com (last visited Jan. 5, 2015).

[941] CDT Comments at 11.

[942] Sandvine, *Sandvine Report: Netflix and YouTube Account for 50% of All North American Fixed Network Data*, (Nov. 11, 2013), https://www.sandvine.com/pr/2013/11/11/sandvine-report-netflix-and-youtube-account-for-50-of-all-north-american-fixed-network-data.html; *see also* Alcatel-Lucent Comments at 5 ("In the United States alone, Internet video consumption is expected to grow at least 12 times in the next 6 years, and managed video on-demand ('VoD') services are expected to grow 28% per year until 2017.").

[943] As previously discussed, Google and Yahoo! also provide the popular email services Gmail and Yahoo! Mail, respectively. *See supra* para. 348.

[944] *See, e.g.*, Alexa, *Top Sites in United States*, http://www.alexa.com/topsites/countries/US (last visited Jan. 22, 2015).

[945] *See id.*; *see also* comScore, *comScore Ranks the Top 50 US Digital Media Properties for August 2014*, http://ir.comscore.com/releasedetail.cfm?ReleaseID=871631 (last visited Jan. 5, 2015).

[946] CDT Comments at 9. CDT contrasts the current state of affairs with an earlier time "when Internet access service providers sought to differentiate themselves by offering 'walled gardens' of proprietary content and users looked to their access provider to serve as a kind of curator of the chaos of the Internet." *Id*. at 9-10.

[947] *See id*. at 11; *see also* AARP Comments at 11 ("[T]he broadband service that consumers rely on primarily today is *pure transmission* between their device and remote computing resources or content of their choice.").

predominant feature that characterizes broadband Internet access service offerings.[948] For example, Comcast advertises that its XFINITY Internet service offers "the consistently fast speeds you need, even during peak hours,"[949] and RCN markets its high-speed Internet service as providing the ability "to upload and download in a flash."[950] Verizon claims that "[w]hatever your life demands, there's a Verizon FiOS plan with the perfect upload/download speed for you,"[951] while the name of Verizon's DSL-based service is simply "High Speed Internet."[952] Furthermore, fixed broadband providers use transmission speeds to classify tiers of service offerings and to distinguish their offerings from those of competitors. AT&T U-Verse, for instance, offers four "Internet Package[s]" at different price points, differentiated in terms of the "Downstream Speeds" they provide.[953] Verizon meanwhile asserts that "the 100% fiber-optic network that powers FiOS" enables "a level of speed and capacity that cable can't always compete with—especially when it comes to upload speeds."[954] On the mobile side, mobile broadband providers similarly emphasize transmission speed as well as reliability and coverage as factors that characterize their mobile broadband Internet access service offering. AT&T, for example, claims that it has the "[n]ation's most reliable 4G LTE network" and that what 4G LTE means is "speeds up to 10x faster than 3G." [955] Sprint advertises its "Sprint Spark" service as having its "fastest ever data speeds and stronger in-building signal."[956]

352. The advertisements discussed above link higher transmission speeds and service reliability with enhanced access to the Internet at large—to any "points" a user may wish to reach[957]—not only to Internet-based applications or services that are provided in conjunction with broadband access. RCN, for instance, claims that its "110 Mbps High-Speed Internet" offering is "ideal for watching Netflix," a third-party video streaming service.[958] Verizon claims that FiOS's "75/75 Mbps" speed "works well for uploading and sharing videos on YouTube and serious multi-user gaming" presumably by using the FiOS service to access any combination of third-party and Verizon-affiliated content and

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[948] *See, e.g.*, Public Knowledge Comments at Appx. A (compiling "[s]elected examples of [broadband provider] advertisements in July of 2014" to demonstrate that "ISPs advertise their services primarily in terms of the speed and reliability with which they can transmit data to and from third parties"); *see also* AARP Comments at 10-11; CDT Comments at 10-11.

[949] Comcast, *XFINITY*, http://www.comcast.com/internet-service.html (last visited Dec. 31, 2014); *see also* CDT Comments at 9 n.8.

[950] *See* Public Knowledge Comments at Appx. A-3.

[951] *See id.* at Appx. A-6.

[952] *See, e.g.*, Verizon, *Verizon | High Speed Internet*, http://www.verizon.com/home/highspeedinternet (last visited Dec. 31, 2014) ("When you're looking for all value and consistently fast speeds all the time, Verizon High Speed Internet is the answer."); *see also* AT&T, *AT&T DSL High Speed Internet*, http://www.att.com/shop/internet/internet-service.html#fbid=5suMbb0rEF8 (last visited Dec. 31, 2014) ("Make AT&T your Internet provider and take your pick of broadband Internet speeds to suit every need.").

[953] *See* Public Knowledge Comments at Appx. A-1.

[954] *Id*. at A-6; *see also* Comcast, *XFINITY vs. the Competition*, http://www.comcast.com/compare/comcast-xfinity-vs-verizon-fios.html (last visited Jan. 5, 2015).

[955] Public Knowledge Comments at Appx. A-2.

[956] Public Knowledge Comments at Appx. A-4.

[957] *See* 47 U.S.C. § 153(50) (definition of "telecommunications").

[958] *See* RCN, *High Speed Internet in D.C. Metro Plans & Pricing*, http://www.rcn.com/dc-metro/high-speed-internet/services-and-pricing (last visited Feb. 5, 2015); Public Knowledge Comments at Appx. A-3.

services the user chooses.[959] AT&T notes that its 4G LTE service "lets you stream clear, crisp video faster than ever before, download songs in a few beats, apps almost instantly, and so much more."[960] Broadband providers also market access to the Internet through Wi-Fi. Comcast, for example, notes that with its XFinity Internet services, subscribers can enjoy "access to millions of hotspots nationwide and stay connected while away from home."[961] T-Mobile advertises the ability to place calls and send messages over Wi-Fi.[962]

353. Fixed and mobile broadband Internet access service providers also price and differentiate their service offerings on the basis of the quality and quantity of data transmission the offering provides. AT&T U-Verse, for instance, offers four "Internet Package[s]" at different price points, differentiated in terms of the "Downstream Speeds" they provide.[963] On the mobile side, monthly data allowances—i.e., caps on the amount of data a user may transmit to and from Internet endpoints—are among the features that factor most heavily in the pricing of service plans.[964]

354. In short, broadband Internet access service is marketed today primarily as a conduit for the transmission of data across the Internet.[965] The record suggests that fixed broadband Internet access service providers market distinct service offerings primarily on the basis of the transmission speeds associated with each offering. Similarly, mobile providers market their service offerings primarily on the basis of the speed, reliability, and coverage of their network. Marketing broadband services in this way leaves a reasonable consumer with the impression that a certain level of transmission capability—measured in terms of "speed" or "reliability"—is being offered in exchange for the subscription fee, even if complementary services are also included as part of the offer.

3. Broadband Internet Access Service Is a Telecommunications Service

355. We now turn to applying the statutory terms at issue in light of our updated understanding of how both fixed and mobile broadband Internet access services are offered. Three definitional terms are critical to a determination of the appropriate classification of broadband Internet

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[959] *See* Verizon, *FiOS Internet*, http://www.verizon.com/home/fios-fastest-internet/ (last visited Feb. 5, 2015); *see also* Public Knowledge Comments at Appx. A-6.

[960] *See* AT&T, *AT&T is the nation's most reliable LTE network*, http://www.att.com/network/en/index.html (last visited Jan. 25, 2015); Public Knowledge Comments at Appx. A-2.

[961] Comcast, XFINITY, http://www.comcast.com/internet-service.html (last visited Feb. 22, 2015).

[962] T-Mobile, *Now Calling Can Be Done Virtually Everywhere. Every Wi-Fi Connection Works Like a T-Mobile Tower*, http://www.t-mobile.com/offer/wifi-calling-wifi-extenders.html (last visited Feb. 22, 2015).

[963] *See* Public Knowledge Comments at Appx. A-1; *see also id*. at Appx. A-3, A-5 (similar advertisements from RCN and Time Warner Cable, respectively).

[964] *See, e.g.*, CTIA Comments at 8 n.13 (discussing the characteristics of various mobile service offerings); *see also* Verizon Wireless, *Single Line Cell Phone Plans*, http://www.verizonwireless.com/wcms/consumer/shop/shop-data-plans/single-line-data-plans.html (last visited Jan. 25, 2015); AT&T, *Wireless Plans*, http://www.att.com/shop/wireless/plans/mobileshare.html (last visited Jan. 25, 2015); Sprint, *The Best Value in Wireless*, http://www.sprint.com/landings/datashare/index.html?INTNAV=ATG:HE:DataShare (last visited Jan. 25, 2015); T-Mobile, *Simple Choice Plan*, http://www.t-mobile.com/cell-phone-plans/individual.html (last visited Jan. 25, 2015).

[965] The marketing materials discussed here also indicate that broadband providers hold themselves out indifferently to the public when offering broadband Internet access service. Within particular service areas, broadband providers tend to offer uniform prices and services to potential customers. *See, e.g.*, Public Knowledge Comments at 79; Free Press Comments at 64-65. As discussed above, these offers are widely available through advertisements and marketing materials. *See supra* paras. 351-353.

access service. First, the Act defines "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[966] Second, the Act defines "telecommunications service" as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."[967] Finally, "information service" is defined in the Act as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . . , but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."[968] We observe that the critical distinction between a telecommunications and an information service turns on what the provider is "offering." If the offering meets the statutory definition of telecommunications service, then the service is also necessarily a common carrier service.[969]

356. In reconsidering our prior decisions and reaching a different conclusion, we find that this result best reflects the factual record in this proceeding, and will most effectively permit the implementation of sound policy consistent with statutory objectives. For the reasons discussed above, we find that broadband Internet access service, as offered by both fixed and mobile providers, is best seen, and is in fact most commonly seen, as an offering (in the words of Justice Scalia, dissenting in *Brand X*) "consisting of two separate things": "*both* 'high-speed access to the Internet' *and* other 'applications and functions.'"[970] Although broadband providers in many cases provide broadband Internet access service along with information services, such as email and online storage, we find that broadband Internet access service is today sufficiently independent of these information services that it is a separate "offering."[971] We also find that domain name service (DNS)[972] and caching,[973] when provided with broadband Internet access services, fit squarely within the telecommunications systems management exception to the

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[966] 47 U.S.C. § 153(50).

[967] *Id.* § 153(53).

[968] *Id.* § 153(24).

[969] *See Universal Service First Report and Order*, 12 FCC Rcd at 9177, para. 785 ("We find that the definition of 'telecommunications services' in which the phrase 'directly to the public' appears is intended to encompass only telecommunications provided on a common carrier basis."); *U.S. Telecom Ass'n v. FCC*, 295 F.3d at 1328-29 (telecommunications carriers limited to common carriers); *Cable & Wireless, PLC*, Order, 12 FCC Rcd 8516, 8521, para. 13 (1997) ("[T]he definition of telecommunications services is intended to clarify that telecommunications services are common carrier services.").

[970] *Brand X*, 545 U.S. at 1008 (quoting *Cable Modem Declaratory Ruling*).

[971] *See Brand X*, 545 U.S. at 1008 (Scalia, J., dissenting) ("[T]he telecommunications component of cable-modem service retains such ample independent identity that it must be regarded as being on offer—especially when seen from the perspective of the consumer."); *cf. AT&T Corp.* et al., File Nos. E-98-41, E-98-42, E-98-43, Memorandum Opinion and Order, 13 FCC Rcd 21438 (1998), *aff'd sub nom. U.S. West Communications, Inc. v. FCC*, 177 F.3d 1057 (D.C. Cir. 1999) (analogizing the 1996 Act's terms "offer" and "provide," and finding that BOCs were unlawfully "providing" long distance service from Qwest in part based on evidence of marketing it as their own).

[972] DNS is most commonly used to translate domain names, such as "nytimes.com," into numerical IP addresses that are used by network equipment to locate the desired content. *See Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4810, para. 17 n.74; *see also Brand X*, 545 U.S. at 987, 999.

[973] Caching is the storing of copies of content at locations in a network closer to subscribers than the original source of the content. This enables more rapid retrieval of information from websites that subscribers wish to see most often. *See Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4810, para. 17 n.76.

definition of "information service."[974] Thus, when provided with broadband Internet access services, these integrated services do not convert broadband Internet access service into an information service.[975]

357. *The Commission Does Not Bear a Special Burden in This Proceeding.* Opponents of classifying broadband Internet access service as a telecommunications service advocate a narrow reading of the Supreme Court's decision in *Brand X*. They contend that the Court's decision to affirm the classification of cable modem service as an information service was driven by specific factual findings concerning DNS and caching, and argue that the Commission may not revisit its decision unless it can show that the facts have changed.[976] Opponents also cite a passage from the Supreme Court's *Fox* decision suggesting that an agency must provide "a more detailed justification than what would suffice for a new policy on a blank slate" where the agency's "new policy rests upon factual findings that contradict those which underlay its prior policy," or "when its prior policy has engendered serious reliance interests that must be taken into account."[977]

358. We disagree with these commenters on both counts. The *Fox* court explained that in these circumstances, "it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy."[978] As the D.C. Circuit more recently confirmed, "[t]his does not . . . equate to a 'heightened standard' for reasonableness."[979] The Commission need only show "that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better."[980] Above, we more than adequately explain our changed view of the facts and circumstances

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[974] *See* 47 U.S.C. § 153(24) ("The term 'information service' . . . does not include any use of any such capability for the management, control, or operation of a telecommunications system of the management of a telecommunications service."). Hereinafter, we refer to this exception as the "telecommunications systems management" exception.

[975] One of the dissenting statements asserts that Congress could not have delegated to the Commission the authority to determine whether broadband Internet access service is a telecommunications service because "[h]ad Internet access service been a basic service, dominant carriers could have offered it (and all related computer-processing functionality) outside the parameters of the *Computer Inquiries*," but "I cannot find a single suggestion that anyone in Congress, anyone at the FCC, anyone in the courts, or anyone at all thought this was the law during the passage of the Telecommunications Act" in 1996. *See* Pai Dissent at 37. We disagree with this line of reasoning. First, it contradicts the Supreme Court's 2005 holding in *Brand X*, where the Court explicitly acknowledged that the Commission had previously classified the transmission service, which broadband providers offer, as a telecommunications service and that the Commission could return to that classification if it provided an adequate justification. *See supra* paras. 332-334. Second, and underscoring the ambiguity that the *Brand X* court identified in finding that the Commission had *Chevron* deference in its classification of broadband Internet access service, the dissenting statement fails to identify any compelling evidence that Congress thought broadband Internet access service was an information service.

[976] *See, e.g.*, Comcast Reply at 17-23; CenturyLink Comments at 46-47; USTelecom Comments at 24; NCTA Comments at 30-31; TWC Comments at 9-13; Letter from Michael E. Glover, Senior Vice Pres. and Dep. Gen. Counsel, Verizon to Marlene H. Dortch, Secretary, FCC , GN Docket Nos. 14-28, 10-127, Attach.at 11-12 (filed Oct. 29, 2014) (Verizon Title II White Paper); *see also Brand X*, 545 U.S. at 991 (observing that the question of whether cable modem service includes separate "offers" of telecommunications service and information service "turns not on the language of the Act, but on the factual particulars of how Internet technology works and how it is provided").

[977] *Fox*, 556 U.S. at 515 (emphasis added); *see also, e.g.*, Comcast Comments at 54; Verizon Comments at 58.

[978] *Fox*, 556 U.S. at 515-16.

[979] *Mary V. Harris*, 776 F.3d at 24 (quoting *Fox*, 556 U.S. at 514).

[980] *Fox*, 556 U.S. at 515; *see also Mary V. Harris*, 776 F.3d at 24.

in the market for broadband Internet access services—which is evident from consumers' heavy reliance on third-party services and broadband Internet access providers' emphasis on speed and reliability of transmission separately from and over the extra features of the service packages they offer.[981] Furthermore, our understanding of the facts of how the elements of broadband Internet access service work has not changed. No one has ever disputed what DNS is or how it works. The issue is whether it falls within the definition of "information service" or the telecommunications systems management exception.[982] If the latter, as we find below, prior factual findings that DNS was inextricably intertwined with the transmission feature of cable modem service do not provide support for the conclusion that cable modem service is an integrated information service.

359. Moreover, opponents' reading of *Brand X* ignores the reasoning and holding of the Court's opinion overall. As discussed above, the *Brand X* opinion confirms that the Supreme Court viewed the statutory classification of cable modem service as a judgment call for the Commission to make. If the Commission had concluded that the transmission component of cable modem service was a telecommunications service, and provided a reasoned explanation for its decision, it is evident that the Court would have deferred to that finding.[983]

360. In *Fox*, the Supreme Court also suggested that an agency may need to provide "a more detailed justification" for a change in policy when the prior policy "has engendered serious reliance interests."[984] Opponents of reclassification contend that broadband providers have invested billions of dollars to deploy new broadband network facilities in reliance on the Title I classification decisions and it would be unreasonable to change course now.[985] We disagree. As a factual matter, the regulatory status of broadband Internet access service appears to have, at most, an indirect effect (along with many other factors) on investment.[986] Moreover, the regulatory history regarding the classification of broadband

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[981] *See supra* Section IV.C.2.

[982] *See infra* paras. 366-367.

[983] *See Brand X*, 545 U.S. at 985-86 ("[O]ur conclusion that it is *reasonable* to read the Communications Act to classify cable modem service solely as an 'information service' leaves untouched *Portland's* holding that the Commission's interpretation is not the *best* reading of the statute."), 989 (explaining that because the term "offering" in section 153(46) admits "of two or more reasonable ordinary usages, the Commission's choice of one of them is entitled to deference"), 992 ("[T]he statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering. This leaves federal telecommunications policy in this technical and complex area to be set by the Commission."), 1002-03 ("The questions the Commission resolved in the order under review involve a subject matter [that] is technical, complex, and dynamic. The Commission is in a far better position to address these questions than we are.") (internal citation and quotation marks omitted). *See also id.* at 1003 (Breyer, J., concurring) ("I join the Court's opinion because I believe that the Federal Communications Commission's decision falls within the scope of its statutorily delegated authority—though perhaps just barely.").

[984] *Fox*, 556 U.S. at 515.

[985] *See, e.g.*, CenturyLink Comments at 45-46; TWC Comments at 13; NCTA Comments at 33-34; AT&T Comments at 47-48; CTIA Reply at 49-51; Letter from Scott Bergmann, Vice Pres. Reg. Affairs, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, Attach. at 20-21 (filed Dec. 22, 2014) (CTIA Dec. 22, 2014 *Ex Parte* Letter).

[986] *See infra* Section IV.C.5; *see also, e.g.*, Free Press Comments at 116-20 (evaluating stock prices of major broadband provider companies one month, three months, and six months after the *Broadband Classification NOI* and showing that those stocks outperformed the broader market, except for Comcast, which was undergoing a merger); *id.* at 92-93 n.198 ("For example, shortly after former Chairman Genachowski announced his intention to apply common carriage to broadband access services . . . Landell Hobbs, then Time Warner Cable's Chief Operating Officer, stated on an investor call that the Title II classification proposed by the Genachowski FCC 'is a light regulatory touch. . . . [The FCC's] focus is really to put them in a position where they can execute around their

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Internet access service would not provide a reasonable basis for assuming that the service would receive sustained treatment as an information service in any event. As noted above, the history of the *Computer Inquiries* indicates that, at a minimum the regulatory status of these or similar offerings involved a highly regulated activity for many years.[987] The first formal ruling on the classification of broadband Internet access service came from the Ninth Circuit in 2000, which held that the best reading of the relevant statutory definitions was that cable modem service in fact includes a telecommunications service.[988] The *Cable Modem Declaratory Ruling* was expressly limited to cable modem service "as it [was] currently offered."[989] The lawfulness of the Commission's 2002 *Cable Modem Declaratory Ruling* remained unsettled until the Supreme Court affirmed it in 2005, and the Commission's *Wireline Broadband Classification Order* was not affirmed until two years later, in 2007.[990] In 2010, the Commission sought comment on reclassifying broadband Internet access services, and sought to refresh the record again in 2014.[991] While the Commission did classify wireless broadband Internet access service as an information service in 2007, the *Comcast* and *Verizon* decisions, in 2009 and 2014 respectively, called into doubt the Commission's ability to rely upon its Title I ancillary authority to protect the public interest and carry out its statutory duties to promote broadband investment and deployment. The legal status of the information service classification thus has been called into question too consistently to have engendered such substantial reliance interests that our reclassification decision cannot now be sustained absent extraordinary justifications.[992] Finally, the forbearance relief we grant in the accompanying order in conjunction with our reclassification decision keeps the scope of our proposed regulatory oversight within the same general boundaries that the Commission earlier anticipated drawing under its Title I authority. We thus reject the claims that our action here unlawfully upsets reasonable reliance interests. In any event, we provide in this ruling a compelling explanation of why changes in the marketing, pricing, and sale of broadband Internet access service, as well as the technical characteristics of how the service is

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[N]ational [B]roadband [P]lan, not to rate regulate or crush investment in our sector. That's not at all what we believe. So . . . *yes, we will continue to invest*[.]' *See* JP Morgan Global Technology, Media and Telecom Conference: Time Warner Cable, Inc. Management Discussion (May 19, 2010) (emphasis added). A week after the former Chairman's announcement, Comcast CEO Brian Roberts (a signatory of the *May 2014 Broadband for America Letter*) responded to questions about the FCC's Third Way proposal before an audience at the 2010 Cable Show. He said that 'the government is not a big worry," and also said that he expected the industry to continue to invest and innovate. *See* Michelle Ow, *Top MSOs Weigh In on Reclassification*, SNL Kagan (May 12, 2010). Also, Lowell McAdam, then-CEO of Verizon Wireless, emphasized that the company had no plans to slow investment in its wireless broadband network as a result of the FCC's move. *See* Niraj Sheth, *Verizon in Talks to License 4G Spectrum to Rural Carriers*, Wall Street Journal (May 13, 2010)."); USTelecom, *Historical Broadband Provider Capex*, http://www.ustelecom.org/broadband-industry-stats/investment/historical-broadband-provider-capex (last visited Jan. 5, 2015) (showing U.S. broadband providers' capital expenditures continued to increase yearly after the *Broadband Classification NOI*).

[987] *See supra* paras. 311-313.

[988] *AT&T Corp. v. City of Portland*, 216 F.3d at 877-80.

[989] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4802, para. 7.

[990] *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

[991] *Broadband Classification NOI*, 25 FCC Rcd 7866; *Wireline Competition Bureau Seeks to Refresh the Record in the 2010 Proceeding on Title II and Other Potential Legal Frameworks for Broadband Internet Access Service*, GN Docket No. 10-127, Public Notice, 29 FCC Rcd 5856 (Wireline Comp. Bur. 2014).

[992] *See FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 125, 160 (2000) (setting aside FDA decision, in 1996, to assert jurisdiction to regulate tobacco after repeatedly disavowing its authority to do so since its inception in 1914).

offered, now justify a revised classification of the service.[993]

a. Broadband Internet Access Service Involves Telecommunications

361. *Broadband Internet Access Service Transmits Information of the User's Choosing Between Points Specified by the User.* As discussed above, the Act defines "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[994] It is clear that broadband Internet access service is providing "telecommunications." Users rely on broadband Internet access service to transmit "information of the user's choosing," "between or among points specified by the user."[995] Time Warner Cable asserts that broadband Internet access service cannot be a telecommunications service because—as end users do not know where online content is stored—Internet communications allegedly do not travel to "points specified by the user" within the statutory definition of "telecommunications."[996] We disagree. We find that the term "points specified by the user" is ambiguous, and conclude that uncertainty concerning the geographic location of an endpoint of communication is irrelevant for the purpose of determining whether a broadband Internet access service is providing "telecommunications." Although Internet users often do not know the geographic location of edge providers or other users, there is no question that users specify the end points of their Internet communications.[997] Consumers would be quite upset if their Internet communications did not make it to their intended recipients or the website addresses they entered into their browser would take them to unexpected web pages. Likewise, numerous forms of telephone service qualify as telecommunications even though the consumer typically does not know the geographic location of the called party. These

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[993] In response to arguments raised in the dissenting statements, we clarify that, even assuming, *arguendo*, that the facts regarding how BIAS is offered had not changed, in now applying the Act's definitions to these facts, we find that the provision of BIAS is best understood as a telecommunications service, as discussed below, *see infra* Sections IV.C.3.b., IV.C.3.c., and disavow our prior interpretations to the extent they held otherwise.

[994] 47 U.S.C. § 153(50).

[995] *Id.*; *see* Barbara A. Cherry and Jon M. Peha, The Telecom Act of 1996 *Requires* the FCC to Classify Commercial Internet Access as a Telecommunications Service, GN Docket No. 14-28, at 5 (filed Dec. 22, 2014) (Cherry and Peha Dec. 22, 2014 *Ex Parte*) ("It is clear that IP Packet Transfer means transmission of information that is of the packet sender's choosing, since the sender chooses what information to put in each packet. Moreover, it is the nature of IP Packet Transfer that the 'form and content of the information' is precisely the same when an IP packet is sent by the sender as when that same packet is received by the recipient.").

[996] TWC Comments at 12; *see also* Letter from Christopher S. Yoo to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 09-191, 10-127, at 2-3 (filed Dec. 22, 2014) (Yoo Dec. 22, 2014 *Ex Parte* Letter) (asserting that broadband Internet access transmission does not take place between points specified by the user because physical locations are identified by an Internet Protocol address, and end users and applications generally use domain names and rely on a DNS service to map domain names onto IP addresses).

[997] *See* Cherry and Peha Dec. 22, 2014 *Ex Parte* at 5 ("In each IP packet, the sender places the IP address of the packet's intended recipient. In some cases, the sender knows the recipient's IP address already, and in some cases the sender must first look up the desired IP address. Either way, communications is clearly to a point specified by the user sending the packet."); AT&T Reply at 101 (stating that once traffic is delivered to AT&T via interconnection, "AT&T, just like any other ISP, delivers that traffic to its intended destination"). For example, in transmissions from the user to an edge provider, a user either directly specifies the domain name of the edge provider or utilizes a search engine to determine the domain name. The application that a user chooses then uses DNS to translate the domain name into an IP address associated with the edge provider, which is placed into the packet as its destination. For transmissions from an edge provider to a user, the edge provider places the user's IP address into the packet as the destination IP address.

include, for example, cell phone service,[998] toll free 800 service,[999] and call bridging service.[1000] In all of these cases, the user specifies the desired endpoint of the communication by entering the telephone number or, in the case of broadband Internet access service, the name or address of the desired website or application. More generally, we have never understood the definition of "telecommunications" to require that users specify—or even know—information about the routing or handling of their transmissions along the path to the end point, nor do we do so now. Further, that there is not a one-to-one correspondence between IP addresses and domain names, and that DNS often routes the same domain name to different locations based on its inference of which location is most likely to be the one the end user wants, does not alter this analysis.[1001] It is not uncommon in the toll-free arena for a single number to route to multiple locations, and such a circumstance does not transform that service to something other than telecommunications.[1002]

362. *Information is Transmitted Without Change in Form or Content*. Broadband Internet access service may use a variety of protocols to deliver content from one point to another. However, the packet payload (*i.e.*, the content requested or sent by the user) is not altered by the variety of headers that a provider may use to route a given packet. The information that a broadband provider places into a packet header as part of the broadband Internet access service is for the management of the broadband Internet access service and it is removed before the packet is handed over to the application at the destination.[1003] Broadband providers thus move packets from sender to recipient without any change in format or content, and "merely transferring a packet to its intended recipient does not by itself involve generating, acquiring, transforming, processing, retrieving, utilizing, or making available information."[1004]

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[998] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9175, para. 780 (1997) (*Universal Service First Report and Order*), *rev'd in part on other grounds Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393 (5th Cir. 1999); *see also* 47 U.S.C. § 332(c)(1) (providers of commercial mobile radio service shall be treated as common carriers).

[999] *Universal Service First Report and Order*, 12 FCC Rcd at 9175, para. 780; *see also AT&T Corp. v. Winback & Conserve Program, Inc.*, File No. E-97-02, Memorandum Opinion and Order, 16 FCC Rcd 16074, 16075, para. 2 (2001).

[1000] *Request for Review by InterCall, Inc. of Decision of Universal Service Administrator*, CC Docket No. 96-45, Order, 23 FCC Rcd 10731, 10734-35, para. 11 (2008).

[1001] *See* Yoo Dec. 22, 2014 *Ex Parte* Letter at 2.

[1002] *See, e.g.*, *U.S. Department of Health and Human Services Substance Abuse and Mental Health Services Administration Petition for Permanent Reassignment of Three Toll Free Suicide Prevention Hotline Numbers; Toll Free Service Access Codes*, WC Docket No. 07-271, CC Docket No. 95-155, Memorandum Opinion and Order and Order on Review, 24 FCC Rcd 13022, 13023, para. 2 (2009) ("The hotlines are routing mechanisms for hundreds of local suicide prevention organizations. When a person calls a hotline, the call is directly routed to a trained crisis counselor in the organization local to the caller who can assess the situation and determine the proper steps to follow to assist the caller.").

[1003] *See* Internet Engineering Task Force, Requirements for Internet Hosts – Communications Layers, RFC 1122 (Oct. 1989), https://tools.ietf.org/html/rfc1122.

[1004] Cherry and Peha Dec. 22, 2014 *Ex Parte* at 8; *see also, e.g.*, NTCA Comments at 10 ("The transport, routing, conveyance, and exchange of data over networks is transparent, and involves no storage, transformation, or other manipulation of data."); CDT Comments at 29 ("Broadband providers are not engaging in their own speech through the provision of Internet access. They are simply communications conduits."); *id*. at 28-30; EFF Comments at 14 ("Many competitive providers offer content and services similar to what the ISPs might bundle with their transmission, *e.g.*, email, web browsers, search engines, etc., but those services do not provide the transmission service itself. Even if a transport provider bundles these other services along with its transmission service, they remain distinct from that transmission component."); Free Press Comments at 63 ("[N]othing in the *offering* of the service suggests that the ISP will be changing the form or content of the information. And the broadband service

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Rather, "it is the nature of [packet delivery] that the 'form and content of the information' is precisely the same when an IP packet is sent by the sender as when that same packet is received by the recipient."[1005]

b. Broadband Internet Access Service is a "Telecommunications Service"

363. Having affirmatively determined that broadband Internet access service involves "telecommunications," we also find that broadband Internet access service is a "telecommunications service." A "telecommunications service" is the "offering of telecommunications for a fee directly to the public, . . . regardless of the facilities used."[1006] We find that broadband Internet access service providers offer broadband Internet access service "directly to the public." As discussed above, the record indicates that broadband providers routinely market broadband Internet access services widely and to the general public.[1007] Because a provider is a common carrier "by virtue of its functions," we find that such offerings are made directly to the public within the Act's definition of telecommunications service.[1008] We draw this conclusion based upon the common circumstances under which providers offer the service, and we reject the suggestion that we must evaluate such offerings on a narrower carrier-by-carrier or geographic basis.[1009] Further, that some broadband providers require potential broadband customers to disclose their addresses and service locations before viewing such an offer does not change our conclusion.[1010] The

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itself does not in fact change the form or content of the information. For if it did, many of the online services that are widely used would not function properly.") (emphasis in original). A BIAS provider, when utilizing the Internet Protocol, may fragment packets into multiple pieces. However, such fragmentation does not change the form or content, as the pieces are reassembled before the packet is handed over to the application at the destination. *See* Internet Protocol, DARPA Internet Program Protocol Specification, RFC 791 (Sept. 1981), https://tools.ietf.org/html/rfc791.

[1005] Cherry and Peha Dec. 22, 2014 *Ex Parte* at 5; *see also* Internet Protocol, DARPA Internet Program Protocol Specification, RFC 791, para. 1.2 (Sept. 1981), https://tools.ietf.org/html/rfc791 ("The internet protocol is specifically limited in scope to provide the functions necessary to deliver a package of bits (an internet datagram) from a source to a destination over an interconnected system of networks."). For example, when a person sends an email, he or she expects that the content of the email, and any attachments, to be delivered to the recipient unaltered in content or form. We note that a user may choose to use an application, such as email, that is a separate information service offered by the BIAS provider. When this occurs, the provider of the information service may place information into the packet payload that changes the form or content. However, this change in form or content is purely implemented as part of the separable information service. The broadband provider, in transmitting the packet via BIAS, does not alter the form or content of the packet payload.

[1006] 47 U.S.C. § 153(53).

[1007] *See supra* Section IV.C.2. *See, e.g.*, Free Press Comments at 64-65; Public Knowledge Comments at 79.

[1008] *See NARUC I*, 525 F.2d at 644 (citing *Lone Star Steel Co. v. McGee*, 380 F.2d 640, 648 (5th Cir. 1967) (whether an entity is a common carrier "depends not upon its corporate character or declared purposes, but upon what it does") (citations omitted)).

[1009] *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14879-81, paras. 48-51 (declining to evaluate the market for broadband Internet access service on a local market basis, and instead finding that the broadband Internet access market is "more appropriately analyzed in view of larger trends in the marketplace, rather than exclusively through the snapshot data that may quickly and predictably be rendered obsolete as [the] market continues to evolve"); *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4809 n.69 ("We recognize that not all cable operators include all of these functions in their cable modem service offerings."); *id.* at 4822-23, para. 38 (basing cable modem classification on how service was offered generally, "regardless of whether every cable modem service provider offers each function that could be included in the service").

[1010] *See* Public Knowledge Comments at 79; *but see* Letter from Gary L. Phillips, General Attorney & Assoc. General Counsel, AT&T to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 6-7 (filed Feb. 2,

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Commission has long maintained that offering a service to the public does not necessarily require holding it out to all end users.[1011] Some individualization in pricing or terms is not a barrier to finding that a service is a telecommunications service.[1012]

364. In addition, the implied promise to make arrangements for exchange of Internet traffic as part of the offering of broadband Internet access service does not constitute a private carriage arrangement.[1013] First, in offering broadband Internet access service to its end-user customers, the broadband provider has voluntarily undertaken an obligation to arrange to transfer that traffic on and off its network.[1014] Broadband providers hold themselves out to carry all edge provider traffic to the broadband provider's end user customers regardless of source and regardless of whether the edge provider itself has a specific arrangement with the broadband provider.[1015] Merely asserting that the traffic exchange component of the service may have some individualized negotiation does not alter the nature of the underlying service. Second, the record reflects that broadband providers assert that multiple routes to reach their networks are widely and readily available.[1016] They cannot, at the same time, assert that all arrangements for delivering traffic to their end-user subscribers are individually negotiated with every edge provider.[1017] Third, the record reflects that the majority of arrangements for traffic exchange are

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2015) (AT&T Feb. 2, 2015 *Ex Parte* Letter) (asserting that broadband providers may decide on a case-by-case basis whether to service a particular end user, what connection speeds to offer, and at what price).

[1011] *See Federal-State Joint Bd. On Universal Serv.*, CC Docket No. 96-45, Order on Remand, 16 FCC Rcd 571, 573-74, paras. 7-10 (2000), *aff'd U.S.Telecom Ass'n v. FCC*, 295 F.3d 1326, 1332-33 (D.C. Cir. 2002) ("[A] carrier offering its services only to a legally defined class of users may still be a common carrier if it holds itself out indiscriminately to serve all within that class."); *NARUC I*, 525 F.2d at 641 ("One may be a common carrier though the nature of the service rendered is sufficiently specialized as to be of possible use to only a fraction of the total population. And business may be turned away either because it is not of the type normally accepted or because the carrier's capacity has been exhausted.").

[1012] *See Orloff v. FCC*, 352 F.3d 415, 419-20 (D.C. Cir. 2003). To the extent our prior precedents might suggest otherwise, we disavow such an interpretation in this context.

[1013] *See, e.g.*, AT&T Feb. 2, 2015 *Ex Parte* Letter at 7; Verizon Dec. 17, 2014 *Ex Parte* Letter at 7-9; Letter from Comcast to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 3-4 (filed Jan. 23, 2015) (Comcast Jan. 23, 2015 *Ex Parte* Letter). Commission precedent "holds that a carrier will not be a common carrier 'where its practice is to make individualized decisions in particular cases whether and on what terms to serve.'" *Universal Service First Report and Order*, 12 FCC Rcd at 9178, para. 785.

[1014] *See, e.g.*, COMPTEL Feb. 19, 2015 *Ex Parte* Letter at 8.

[1015] *See, e.g.*, Comcast Reply at 38 n. 131 ("Netflix could have chosen from a number or routes, including routes through various transit providers and CDNs, to reach Comcast's network."); Cox Reply at 21 (" ISPs interconnect with a variety of transit and [CDN] providers, ensuring that edge providers have multiple cost effective routes to choose from to reach each ISP's customers."); TWC Reply at 16 ("With countless partners from which to choose, content providers are not faced with a gatekeeper limiting their use of peering, transit, and CDN arrangements."); *id.* at 18 ("TWC (like other ISPs) has substantial interconnection capacity available through a multiplicity of transit routes, and edge providers (rather than ISPs) control which routes their traffic will traverse."); Suddenlink Reply at 7 ("In today's market, there are multiple paths across the backbone and into and out of operator networks."); AT&T Reply at 100-101 (explaining that there are often dozens of different ways to deliver traffic onto the ISP's network).

[1016] *See supra* note 1015.

[1017] *See, e.g.*, NCTA Comments at 80-81; Verizon Dec. 17, 2014 *Ex Parte* Letter at 8-9; Comcast Comments at 36-37; *see also Vitelco v. FCC*, 198 F.3d 921, 925 (1999) ("Noting that the Bureau had found that 'AT&T–SSI would have to engage in negotiations with each of its customers on the price and other terms which would vary depending on the customers' capacity needs, duration of the contract, and technical specifications,' the Commission found that AT&T–SSI 'will not sell capacity in the proposed cable indifferently to the public.'").

informal handshake agreements without formalized terms and conditions that would indicate any kind of individualized negotiations.[1018] We recognize that there are some interconnection agreements that do contain more individualized terms and conditions.[1019] However, this circumstance is not inherently different from similarly individualized commercial agreements for certain enterprise broadband services, which the Commission has long held to be common carriage telecommunications services subject to Title II.[1020] That the individualized terms may be negotiated does not change the underlying fact that a broadband provider holds the *service* out directly to the public. As discussed above, it must necessarily do so, in order to offer and provide its broadband Internet access service. Further, we note that these types of individualized negotiations are analogous to other telecommunications providers whose customer service representatives may offer variable terms and conditions to customers in circumstances where the customer threatens to switch service providers.[1021] We therefore find that the implied representation that broadband Internet access service providers will arrange for transport of traffic on and off their networks as part of the BIAS offering does not constitute private carriage. As such, we find that broadband Internet access service is offered "directly to the public," and falls within the definition of "telecommunications service."[1022]

c. Broadband Internet Access Service is Not an "Information Service"

365. We further find that broadband Internet access service is not an information service. The Act defines "information service" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . . but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."[1023] To the extent that broadband Internet access service is offered along with some capabilities that would otherwise fall within the information service definition, they do not turn broadband Internet access service into a functionally integrated information service. To the contrary, we find these capabilities either fall within the telecommunications systems management exception or are separate offerings that are not inextricably integrated with broadband Internet access service, or both.

366. *DNS Falls Within the Telecommunications Systems Management Exception to the Definition of Information Services.* As the Supreme Court spotlighted in *Brand X*, the Commission

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[1018] *See* Letter from Chris Hutchins, Liberty Global, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. at 22 (filed Nov. 25, 2014) ("A survey by OECD, published in early 2013, reported that 99.51% of the 142.210 surveyed Peering agreements were 'handshake agreements' in which the parties agreed to commonly understood terms without creating a written document."); Google Feb. 20, 2015 *Ex Parte* Letter at 1-2.

[1019] *See, e.g.*, Letter from Kathryn A. Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 8 (filed Jan. 30, 2015).

[1020] *See infra* para. 424.

[1021] *Cf. Orloff v. FCC*, 352 F.3d 415 (D.C. Cir. 2003) (allowing individualized negotiation under sections 201 and 202 of the Act).

[1022] If an offering meets the definition of telecommunications service, then the service is also necessarily a common carrier service. *See Universal Service First Report and Order*, 12 FCC Rcd at 9178, para. 785 ("We find that the definition of 'telecommunications services' in which the phrase 'directly to the public' appears is intended to encompass only telecommunications provided on a common carrier basis."); *U.S. Telecom Ass'n v. FCC*, 295 F.3d at 1328-29 (noting that telecommunications carriers are limited to common carriers); *Cable & Wireless, PLC*, Order, 12 FCC Rcd 8516, 8521, para. 13 (1997) ("[T]he definition of telecommunications services is intended to clarify that telecommunications services are common carrier services.").

[1023] 47 U.S.C. § 153(24).

predicated its prior conclusion that cable modem service was an integrated information service at least in part on the view that it "transmits data *only* in connection with the further processing of information."[1024] That was so, under the theory of the *Cable Modem Declaratory Ruling*, because "[a] user cannot reach a third-party's Web site without DNS, which (among other things) matches the Web site address the end user types into his browser (or 'clicks' on with his mouse) with the IP address of the Web page's host server."[1025] The Commission had assumed without analysis that DNS, when provided with Internet access service, is an information service. The Commission credited record evidence that DNS "enable[s] routing" and that "*[w]ithout this service, Internet access would be impractical for most users*."[1026] In his *Brand X* dissent, however, Justice Scalia correctly observed that DNS "is scarcely more than *routing* information, which is expressly excluded from the definition of 'information service'" by the telecommunications systems management exception set out in the last clause of section 3(24) of the Act.[1027] Thus, in his view, such functions cannot be relied upon to convert what otherwise would be a telecommunications service into an information service. Therefore, consideration of whether DNS service falls within the telecommunications systems management exception could have been determinative in the Court's outcome in *Brand X*, had it considered the question.

367. Although the Commission assumed in the *Cable Modem Declaratory Ruling—sub silentio*—that DNS fell outside the telecommunications systems management exception,[1028] Justice Scalia's assessment finds support both in the language of section 3(24), and in the Commission's consistently held view that "adjunct-to-basic" functions fall within the telecommunications systems management exception to the "information service" definition.[1029] Such functions, the Commission has

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[1024] *Brand X*, 545 U.S. at 998 (emphasis added); *see generally Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4821-23, paras. 37-38.

[1025] *Brand X*, 545 U.S. at 999; *see Cable Modem Service Declaratory Ruling*, 17 FCC Rcd at 4822-23, para. 38 n.153 (noting that "[n]early every cable modem subscriber . . . accesses the DNS that is provided as part of the service" in connection with cable modem service communications).

[1026] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4821-22, para. 37 n.147 (internal citation omitted) (emphasis in original).

[1027] *Brand X*, 545 U.S. at 1012-13 (Scalia, J., dissenting) (citing 47 U.S.C. § 153(20) (defining "information service")). The definition of "information service" has since been moved from subsection 20 to subsection 24 of section 3 but has not itself been revised. The telecommunications systems management exception in section 3(24) provides that the term "information service" "does not include" the use of any data processing, storage, retrieval or similar capabilities "for the management, control, or operation of a telecommunications system or the management of a telecommunications service." 47 U.S.C. § 153(24).

[1028] *See Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4822, para. 38 n.150 (containing a passing reference to the telecommunications systems management exception). The Commission's subsequent conclusions that wireline broadband services offered by telephone companies and broadband offered over power lines were unitary information services followed the same theory, also without any analysis of the telecommunications systems management exception. *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14864, para. 15; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13284-87, paras. 5-9.

[1029] *See Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 21958, para. 107 (1996) (*Non-Accounting Safeguards Order*), *recon.*, 12 FCC Rcd 2297, 2298-99, para. 2 (1997). Throughout the history of computer-based communication, Title II covered more than just the simple transmission of data. Some features and services that met the literal definition of "enhanced service," but did not alter the fundamental character of the associated basic transmission service, were considered "adjunct-to-basic" and treated as basic (*i.e.*, telecommunications) services even though they went beyond mere transmission. *See Computer II Final Decision*, 77 FCC 2d at 421, para. 98; *AT&T Corp. Petition for Declaratory Ruling Regarding Enhanced Prepaid Calling Card Services, Regulation of Prepaid Calling Card Services*, WC Docket Nos. 03-133,

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held: (1) must be "incidental" to an underlying telecommunications service—*i.e.*, "'basic' in purpose and use" in the sense that they facilitate use of the network; and (2) must "not alter the fundamental character of [the telecommunications service]."[1030] By established Commission precedent, they include "speed dialing, call forwarding, [and] computer-provided directory assistance,"[1031] each of which shares with DNS the essential characteristic of using computer processing to convert the number or keystroke that the end user enters into another number capable of routing the communication to the intended recipient. Similarly, traditional voice telephone calls to toll free numbers, pay-per-call numbers, and ported telephone numbers require a database query to translate the dialed telephone number into a different telephone number and/or to otherwise determine how to route the call properly,[1032] and there is no doubt

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05-68, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 4826, 4831, para. 16 (2005), *aff'd*, *AT&T Corp. v. FCC*, 454 F.3d 329 (D.C. Cir. 2006). Thus, the Commission's definition of "basic services" (the regulatory predecessor to "telecommunications services") includes, among other things, those intelligent features that run the network or improve its usefulness to consumers, such as a carrier's use of "companding [compressing/expanding] techniques, bandwidth compression techniques, circuit switching, message or packet switching, error control techniques, etc. that facilitate economical, reliable movement of information does not alter the nature of the basic service." *Computer II Final Decision*, 77 FCC 2d at 420, para. 95; *see also Computer III Phase I Order*, 104 FCC 2d at 968, para. 10 ("Data processing, computer memory or storage, and switching techniques can be components of a basic service if they are used solely to facilitate the movement of information."). Basic service can also include "memory or storage within the network . . . used only to facilitate the transmission of the information from the origination to its destination," *Computer II Final Decision*, 77 FCC 2d. at 420, para. 95, and certain types of protocol processing. *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21957-58, para. 106, *recon.*, 12 FCC Rcd at 2298-99, para. 2. *See generally* CDT Comments at 15; Kendall Koning Comments at 28-29; Vimeo Reply at 10; Vonage Comments at 39.

[1030] *See North American Telecommunications Association Petition for Declaratory Ruling Under §64.702 of the Commission's Rules Regarding the Integration of Centrex, Enhanced Services, and Customer Premises Equipment*, 101 FCC 2d 349, 359-61, paras. 24, 27, 28 (1985) (*NATA/Centrex Order*).

[1031] *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21958, para. 107 n.245. *See also NATA/Centrex Order*, 101 FCC 2d at 360, para. 26 ("In the case of speed dialing and call forwarding, the stored telephone numbers specified by the customer and the customer's interaction with that stored information serve but one purpose: facilitating establishment of a transmission path over which a telephone call may be completed. . . . When a customer uses directory assistance, that customer accesses information stored in a telephone company data base. . . . An offering of access to a data base for the purpose of obtaining telephone numbers may be offered as an adjunct to basic telephone service.").

[1032] *See, e.g.*, *Telephone Number Portability*, CC Docket No. 95-116, Notice of Proposed Rulemaking, 10 FCC Rcd 12350, 12354, para. 10 (1995) ("[T]elephone numbers with certain NPA codes [such as 800, 900, and 500] are portable between geographic locations because the IXCs are able to 'map', or translate, the dialed, non-geographic number into a geographic number."); *Telephone Number Portability*, CC Docket No. 95-116, Second Report and Order, 12 FCC Rcd 12281, 12287-88, para. 8 (1997) ("Carriers routing telephone calls to customers who have ported their telephone numbers from one carrier to another query the local Service Management System (SMS) database to obtain the location routing number that corresponds to the dialed telephone number. This database query is performed for all calls to switches from which at least one number has been ported. Based on the location routing number, the querying carrier then would route the call to the carrier serving the ported number.") (citations omitted); *Application of Bellsouth Corporation, Bellsouth Telecommunications, Inc., and Bellsouth Long Distance, Inc., for Provision of In-Region, Interlata Services In Louisiana*, CC Docket No. 98-121, Memorandum Opinion and Order, 13 FCC Rcd 20599, para. 275 n.858 (1998) (under an initial, interim form of local number portability, "the carrier that originally served the called customer redirects the telephone calls by translating the dialed number to a new transparent number associated with the acquiring carrier's switch, essentially placing a second telephone call to the customer's new location"); *Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7623, para. 118 n.242 (2000) ("[T]o facilitate proper network routing in a thousands-block number pooling environment, every service provider's existing LNP SCP database within the pooling area would store specific LRN routing information for thousand number blocks within
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that the inclusion of that functionality does not somehow convert the basic telecommunications service offering into an information service.[1033]

368. Citing language from a staff decision to the effect that adjunct-to-basic functions do not include functions that are "useful to end users, rather than carriers,"[1034] AT&T argues that DNS must fall outside of the telecommunications systems management exception because "Internet access providers use DNS functionality not merely (or even primarily) to 'manage' their networks more efficiently, but to make the Internet as a whole easily accessible and convenient *for their subscribers*."[1035] We disagree. The particular function at issue in the cited staff decision—the "storage and retrieval of information that emergency service personnel use to respond to E911 calls"—was not instrumental in placing calls or managing the communications network, but simply allowed certain telecommunications consumers (E911 answering centers and first responders) to identify the *physical location* of the distressed caller in order to render assistance, a benefit to be sure, but one unrelated to telecommunications.[1036] By contrast, DNS—like the speed dialing, call forwarding, and computer-provided directory assistance functions that already have been definitively classified as falling within the telecommunications systems management exception to section 3(24)— allows more efficient use of the telecommunications network by facilitating accurate and efficient routing from the end user to the receiving party.[1037]

369. AT&T's other arguments regarding DNS also fail. Contrary to its suggestion,[1038] the fact that the analogous speed dialing, call forwarding, and computer-provided directory assistance functions that the Commission has designated as falling within the telecommunications systems management exception were adjunct to "legacy telephone ('basic') services" rather than to "Internet-based services" provides no basis to discard the logic of that analysis in the broadband context. Nor are we persuaded by

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the same NXX. In addition, each service provider's LNP mechanism would query its database for calls to pooled numbers allocated to other service providers.").

[1033] Consider also the role that telephone operators traditionally played in routing telephone calls. Traditional telephony required a telephone operator to route and place calls requested by the customer. We do not believe that anyone would argue that such arrangements would turn traditional telephone service into an information service.

[1034] *Petitions for Forbearance from the Application of Section 272 of the Communications Act of 1934, As Amended, to Certain Activities, Bell Operating Companies*, CC Docket No. 96-149, Memorandum Opinion and Order, 13 FCC Rcd 2627, 2639, para. 18 (Com. Car. Bur. 1998) (*1998 272 Forbearance Order*).

[1035] AT&T Reply at 39-40 (emphasis in original).

[1036] *1998 272 Forbearance Order*, 13 FCC Rcd at 2638-39, para. 18 & n.70.

[1037] *See, e.g.*, Vimeo Reply at 10 ("DNS' analog equivalents—the old-time switchboard, live operator, directory assistance, or a phone book—never made Ma Bell an 'information service.'"); CDT Comments at 14. Notwithstanding the close resemblance between DNS and these features that the Commission previously has found to be within the telecommunications systems management exception, USTelecom contends that "DNS does not manage or control a telecommunications system or a telecommunications service." USTelecom Reply at 32. As with call forwarding, speed dialing, and computer-provided directory assistance, however, DNS manages the network in the sense of facilitating efficient routing and call completion. In any event, even if DNS were not viewed as facilitating network management, it clearly would fall within the exception as a capability used for the "operation of a telecommunications system." 47 U.S.C. § 153(24). Responding to assertions in one of the dissenting statements, (Pai Dissent at 36-37), we expressly find this rationale applies equally to other services that arguably serve the interests of subscribers, such as, for example, caching. While these services do provide a benefit to subscribers in the form of faster, more efficient service, they also serve to manage the network by facilitating efficient retrieval of requested information, reducing a broadband provider's costs in the provision of the service. In addition, caching and other services which provide a benefit to subscribers, like DNS, also serve as a capability used for the operation of a telecommunications system by enabling the efficient retrieval of information.

[1038] AT&T Reply at 38.

AT&T's observation that DNS systems provide additional "reverse look-up" functions (*i.e.*, converting a numeric IP address into a domain name) that are "analogous to (though far more sophisticated than) 'reverse directory assistance'" services that were deemed to be enhanced services in the legacy circuit-switched telephone service environment.[1039] Even assuming, *arguendo*, that such "reverse look-up" functions were analogous, we do not believe that the inclusion of such functionality would convert what was otherwise a telecommunications service into an information service. As the Supreme Court recognized, an entity may not avoid Title II regulation of its telecommunications service simply by packaging that service with an information service.[1040] As the Court explained, "a telephone company that packages voice mail with telephone service offers a transparent transmission path—telephone service—that transmits information independent of the information-storage capabilities provided by voice mail. For instance, when a person makes a telephone call, his ability to convey and receive information using the call is only trivially affected by the additional voice-mail capability."[1041] Likewise, we find that to the extent a DNS "reverse look-up" functionality is included with the offering of broadband Internet access service, the service itself—the transmission of data to and from all or substantially all Internet endpoints—is only trivially dependent on, if at all, the "reverse look-up" function cited by AT&T. We find that this analysis applies equally to the DNS "assist capabilities" cited by AT&T, in which the provider's DNS functionality may also be used occasionally to guess what a user meant when she mistyped an address.[1042]

370. Although we find that DNS falls within the telecommunications systems management exception, even if did not, DNS functionality is not so inextricably intertwined with broadband Internet access service so as to convert the entire service offering into an information service. First, the record indicates that "IP packet transfer does work just as well without DNS, but is simply less useful, just as a telephone system is less useful without a phone book."[1043] Indeed, "[t]here is little difference between DNS support offered by a broadband Internet access provider and the 411 directory service offered by many providers of telephone service. Both allow a user to discover how to reach another party, but no one argued that telephone companies were not providing a telecommunications service because they offered 411."[1044] Second, the factual assumption that DNS lookup necessarily is provided *by the broadband Internet access provider* is no longer true today, if it ever was. While most users rely on their broadband providers to provide DNS lookup,[1045] the record indicates that third-party-provided-DNS is now widely available,[1046] and the availability of the service from third parties cuts against a finding that

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[1039] *Id.* at 41.

[1040] *Brand X*, 545 U.S. at 997-98 (citing *Federal-State Joint board on Universal Service*, 13 FCC Rcd 11501, 11530, para. 60 (1998)).

[1041] *Brand X*, 545 U.S. at 998.

[1042] *See* AT&T Reply at 40-41. In the context of voice telephone service, the Commission has recognized that the availability of reverse directory capability does not transform that service from a telecommunications service into an information service. *See, e.g.*, *Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290, 7294-96, paras. 11-17 (2006) (finding that the ability of callers to access functions such as a reverse directory service did not convert calling card services from telecommunications services into information services).

[1043] Cherry and Peha Dec. 22, 2014 *Ex Parte* at 6.

[1044] *Id.* at 7.

[1045] *See* AT&T Comments at 48; Comcast Comments at 58.

[1046] *See, e.g.*, AARP Comments at 11; CDT Comments at 14 ("DNS service, much like e-mail, web-hosting, and the other services discussed above, is available from third-party sources. Google Public DNS processes about 130 billion queries per day. OpenDNS likewise processes over 50 billion daily. Internet users are free to use the DNS

(continued….)

Internet transmission and DNS are inextricably intertwined, whether or not they were at the time of the Commission's earlier classification decisions.[1047] In any event, the fact that DNS may be offered by a provider of broadband Internet access service does not affect our conclusion that the telecommunications is offered directly to the public.

371. Accordingly, we now reconsider our prior analysis and conclude for two reasons that the bundling of DNS by a provider of broadband Internet access service does not convert the broadband Internet access service offering into an integrated information service.[1048] This is both because DNS falls within the telecommunications systems management exception to the definition of information service and because, regardless of its classification, it does not affect the fundamental nature of broadband Internet access service as a distinct offering of telecommunications.

372. *Caching Falls Within the Telecommunications Systems Management Exception.* Opponents of revisiting the Commission's earlier classification decisions also point to caching as another feature of broadband Internet access service packages that the Commission relied upon to find such packages to be information services.[1049] In the *Cable Modem Declaratory Ruling*, the Commission described caching as "the storing of copies of content at locations in the network closer to subscribers than their original sources."[1050] While the Commission noted the caching function in the *Cable Modem Declaratory Ruling*, it did not rely on the caching function (as opposed to the DNS capability) as a basis for its classification determination.[1051] When offered as part of a broadband Internet access service,

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provider of their choice, and switching between them does not require altering any aspect of the Internet access service itself. Users need only quickly update a single setting in their operating system's Internet preferences to point DNS requests to another server."); Kendall Koning Comments at 29; Public Knowledge Comments at 78. To be clear, we do not find that DNS is a telecommunications service (or part of one) when provided on a stand-alone basis by entities other than the provider of Internet access service. In such instances, there would be no telecommunications service to which DNS is adjunct, and the storage functions associated with stand-alone DNS would likely render it an information service. *See Petition for Declaratory Ruling that Pulver.Com's Free World Dialup Is Neither Telecommunications nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Opinion and Order, 19 FCC Rcd 3307, 3315, para. 13 (2004) (when computer processing functions falling within the telecommunications systems management exception are offered on a stand-alone basis, they are not "transformed into telecommunications services").

[1047] *See* Cherry and Peha Dec. 22, 2014 *Ex Parte* at 7.

[1048] *See, e.g.*, CDT Comments at 15 (stating that "the services cited in the *Cable Modem Order* are all either wholly separable and available from third parties; so directed at routing and other critical network functionality as to be considered analogous to adjunct-to-basic services; or, in the case of DNS lookup, both"). We also observe that add-on services to DNS, such as DNS security extensions, do not convert BIAS into an information service. DNS security extensions provide authentication that the messages sent between DNS servers, and between a DNS server and a DNS client, are not altered. As such, DNS security extensions facilitate accurate DNS information, and, like DNS itself, are incidental to BIAS, and do not alter the fundamental character of BIAS. We accordingly disagree with the contrary interpretation of the role of DNS security extensions described in one of the dissenting statements. Pai Dissent at 35-37.

[1049] *See, e.g.*, Bright House Reply at 6-7; AT&T Reply at 54.

[1050] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4810 n.76.

[1051] *Compare Cable Modem Declaratory Ruling*, 17 FCC Rcd at 48909-10, para. 17 & n.76 (identifying caching as part of the Internet connectivity function) *with id.* at 4822, para. 38 (identifying other functionality—but not caching—as a basis for the ultimate information service classification). To the extent that *Brand X* can be read as reaching a different conclusion, we find the Court's characterization of "caching" as enabling "subscribers [to] reach third-party Web sites via the World Wide Web, and browse their contents, [only] because their service provider
(continued….)

caching, like DNS, is simply used to facilitate the transmission of information so that users can access other services, in this case by enabling the user to obtain "more rapid retrieval of information" through the network.[1052] Thus, it falls easily within the telecommunications systems management exception to the information service definition. We observe that this caching function provided by broadband providers as part of a broadband Internet service, is distinct from third party caching services provided by parties other than the provider of Internet access service (including content delivery networks, such as Akamai), which are separate information services.[1053]

373. *Other Features Within the Telecommunications Systems Management Exception.* Opponents raise, as well, a variety of new network-oriented, security-related computer processing capabilities that are used to address broader threats to their broadband networks and customers, including the processing of Internet traffic to check for worms and viruses and features that block access to certain websites.[1054] They claim that, as with DNS, a consumer cannot utilize the service without also receiving many of these security mechanisms. Whether or not a consumer necessarily must utilize security-related blocking functions when using a provider's broadband Internet access service, we find that, like DNS and caching, such capabilities provide telecommunications systems management functions that do not transform what otherwise would be a telecommunications service into an information service. Some security functions, e.g., blocking denial of service attacks, fall within the telecommunications systems management exception because they are used exclusively for the management, control, or operation of the

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offers the capability for . . . acquiring, [storing] . . . retrieving [and] utilizing information" to be technically inaccurate. *See Brand X*, 545 U.S. at 999-1000 (internal quotations omitted).

[1052] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4810 n.76. Caching is akin to a "store and forward technology [used] in routing messages through the network as part of a basic service." *See Computer II Final Decision*, 77 FCC 2d at 421, para. 97 n.35 (emphasis omitted). *See, e.g.*, CDT Comments at 14 ("Caching, too, meets the criteria for an adjunct-to-basic service that should not turn an otherwise telecommunications service into an information service. This function involves simply re-routing traffic to alternate copies of websites stored closer to the subscriber. Its purpose is to reduce network congestion and improve the perceived speed of users' connections. It does not alter the information or provide access to information other than that requested by subscribers. In short, it is simply a technical tool to speed network performance.").

[1053] Third party "content delivery networks" provide extensive caching services. *See* Akamai Comments at 3 (explaining that it deploys its technologies deep in the networks of last-mile broadband Internet providers and caches content locally, and stating that it has deployed approximately 150,000 servers in thousands of locations inside over 1,200 global networks located in over 650 cities and 92 countries); Akamai, *Facts & Figures*, http://www.akamai.com/html/about/facts_figures.html (last visited Jan. 2, 2015) ("Akamai delivers daily Web traffic reaching more than 15 Terabits per second.").

[1054] *See, e.g.*, AT&T Comments at 48-49 (explaining that it includes, as part of its residential broadband service, "security screening, spam protection, pop-up blockers, parental controls, email with virtually unlimited storage, instant messaging with enhanced voice communication, a streaming music service, access to programing content, on-the-go access to the entire national AT&T Wi-Fi Hot Spot network, and the att.net Toolbar for quick access back to a customer's homepage, email, search, games, videos, music, and AT&T support tools"); Comcast Comments at 57; Verizon Comments at 59-60; NCTA Comments at 34-35; TWC Comments at 12 (stating that TWC also provides "highly valued tools such as security screening, spam protection, anti-virus and anti-botnet technologies, pop-up blockers, parental controls, online email and file storage, and a customizable home page for each user"); T-Mobile Comments at 20 (arguing that the transition to LTE and, more generally, to IP-based mobile networks exposes mobile networks to new and rapidly evolving security threats, and that "[s]uch threats require the use of network intelligence and visibility into real-time traffic patterns to improve detection of malicious attacks and accidental traffic floods, as well as scalable, distributed, and automated security tools for discovery and remediation of problems. These tools tightly integrate processing and transmission functions"); CenturyLink Comments at 44-45; Charter Comments at 14-15; ACA Comments at 54-60; USTelecom Comments at 26-27; USTelecom Reply at 29.

telecommunications system. Many such network security functions are analogs of outbound and inbound "call blocking" services, such as those blocking calls to 900 and 976 numbers and those blocking calls from telemarketers, that have always been considered adjunct-to-basic with respect to voice telephony.[1055] Other security functions—firewalls and parental controls, for example—either fall within the telecommunications systems management exception because they are used exclusively for management of the telecommunication service or are separable information services that are offered by providers other than providers of broadband Internet access service. Such security features simply filter out unwanted traffic, and do not alter the fundamental character of the underlying telecommunications service offered to users.[1056] All of these functions ensure that users can use other Internet applications and services without worrying about interference from third parties.

374. CTIA contends that the integration between transmission and processing that characterizes mobile broadband Internet access service requires that it be classified as an information service, and notes that such integration is essential "whether a user is browsing a website, engaged in mobile video conferencing, or undertaking any of the myriad other activities made possible by mobile broadband."[1057] We find that that, rather than transforming what otherwise would be a telecommunications service into an information service, the functions CTIA describes fall within the telecommunications management exception because they serve to facilitate the transmission of information and allow mobile subscribers to make use of other Internet applications and services. Other commenters contend that broadband providers' assignment of Internet Protocol (IP) addresses is also an information service that renders broadband Internet access service an information service.[1058] We disagree. IP address assignment is akin to telephone number assignment, making a user's computer locatable by other users on the network.[1059] Thus, this function serves to enable the transmission of information for the use of other services.[1060] The fact that the end user's equipment must periodically obtain an IP address from the broadband provider's server does not change the fundamental purpose of the service. It is analogous to adjunct-to-basic services that the Commission has held fall squarely within the telecommunications systems management exception.[1061]

375. Finally, Comcast asserts that "with the rise of IPv6 as the eventual replacement for IPv4 as the protocol for identifying and routing Internet content, Comcast and other [providers] also now provide the functionality necessary to transform an IPv4 address into an IPv6 address (and vice versa)," a "processing function" it claims is "part and parcel of broadband Internet access service."[1062] We conclude that, as with DNS functions, the IP conversion functionality is akin to traditional adjunct-to-

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[1055] *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21958, para. 107 n.245.

[1056] *See, e.g.*, CDT Comments at 14-15 ("Like caching, [network security, network monitoring, capacity management, and troubleshooting] are intended to preserve a fast, uncongested, working network. They are most often largely invisible to consumers, in the sense that most consumers are unaware of how they relate to their connection; rather, these activities are simply part and parcel of running a network. To the extent that security services are aimed at securing subscribers' computers and not the network itself, they are typically offered as optional services amid a sea of third-party anti-virus and anti-malware competitors.").

[1057] CTIA Reply at 49.

[1058] *See, e.g.*, TWC Comments at 12.

[1059] *See* Cherry and Peha Dec. 22, 2014 *Ex Parte* at 7.

[1060] *See, e.g.*, Independent Documentary Association Reply at 9; Cherry and Peha Dec. 22, 2014 *Ex Parte* at 7.

[1061] *See supra* note 1029.

[1062] Comcast Reply at 22 (internal quotation omitted); *see also* Verizon Comments at 60-61.

basic services, which fall under the telecommunications systems management exception.[1063] As discussed above, such functions must be "incidental" to an underlying telecommunications service, and must not alter the fundamental character of the telecommunications service. We find that the conversion of IPv4 to IPv6 and vice versa does not alter the information being transmitted, but rather enables the transmission of the information, analogous to traditional voice telephone calls to toll free numbers, pay-per-call numbers, and ported telephone numbers that require a database query to translate the dialed telephone number into a different telephone number and/or to otherwise determine how to route the call properly.[1064] As with these traditional services, the inclusion of this functionality does not somehow convert the basic telecommunications service offering into an information service.

376. *Broadband Internet Access Service Is Not Inextricably Intertwined With Add-On Information Services.* Some commenters contend that broadband Internet access service must be a functionally integrated information service because it is offered in conjunction with information services, such as cloud-based storage services, email, and spam protection.[1065] We find that such services are not inextricably intertwined with broadband transmission service, but rather are a "product of the [provider's] marketing decision not to offer the two separately."[1066] The transmission service provided by broadband providers is functionally distinguishable from the Internet application add-ons they provide.[1067] Service providers cannot avoid the scope of Title II merely by bundling broadband Internet access service with information services. As the Supreme Court majority in *Brand X* recognized, citing the *Stevens Report*, "a company 'cannot escape Title II regulation'" of a telecommunications service "'simply by packaging that service with voice mail'" or similar information services.[1068]

377. We find that these services identified in the record—email, cloud-based storage, and spam protection—are separable information services. We conclude that e-mail accounts and cloud-based storage provided along with broadband Internet access services are akin to voicemail services offered along with traditional telephone service. As the Court found, "a telephone company that packages voice mail with telephone service offers a transparent transmission path—telephone service—that transmits information independent of the information-storage capabilities provided by voicemail. . . . [W]hen a person makes a telephone call, his ability to convey and receive information using the call is only trivially

[1063] *See supra* note 1029.

[1064] *See supra* note 1032.

[1065] *See, e.g.*, Verizon Comments at 59-60 (describing how it now integrates additional features into its broadband offerings, including "cloud-based services" and "caching servers and CDNs that store media content to enable consumers to access that content at faster speeds"); AT&T Comments at 48-49; TWC Comments at 12; NCTA Dec. 23, 2014 *Ex Parte* Letter at 10-11.

[1066] *See Brand X*, 545 U.S. at 1009, n.4 (Scalia, J., dissenting); *see also, e.g.*, Free Press Comments at 66-67; AARP Comments at 11; CDT Comments at 10; Cherry and Peha Dec. 22, 2014 *Ex Parte* at 6, 8.

[1067] *See, e.g.*, WGAW Reply at 33 ("While BIAPs sometimes bundle this telecommunications capability with true information services—such as email services, web-hosting, newsgroups, or anti-virus software—those services are not fundamental to the BIAS service itself. Consumers can and often do obtain those information services from third parties. But more importantly, the BIAS service's functionality would in no way be diminished if a provider failed to provide any of those services, and it is unclear that most subscribers would even notice their absence."); CDT Comments at 11; Free Press Comments at 66-67; AARP Comments at 11.

[1068] *Brand X*, 545 U.S. at 997-98 (quoting *Stevens Report*, 13 FCC Rcd at 11530, para. 60); *see also Independent Data Communications Manuf. Ass'n, Inc.*, Memorandum Opinion and Order, 10 FCC Rcd 13717, 13723, paras. 42, 44-45 (Com. Car. Bur. 1995) (rejecting the argument that AT&T's bundling of enhanced protocol conversion with basic frame relay service renders the whole service an enhanced service).

affected by the additional voice-mail capability."[1069] Likewise, the broadband Internet access service that consumers purchase is only trivially affected, if at all, by the e-mail and cloud-based storage functionalities that broadband providers may offer with broadband Internet access service.[1070] Finally, security functions such as spam blocking are add-ons to separable information services such as email, and are themselves separable information services.

378. It is also notable that engineers view the Internet in terms of network "layers" that perform distinct functions.[1071] Each network layer provides services to the layer above it.[1072] Thus the lower layers, including those that provide transmission and routing of packets, do not rely on the services provided by the higher layers. In particular, the transmission of information of a user's choosing (which is a service offered by lower layers) does not depend on add-on information services such as cloud-based storage services, email, or spam protection (which are services offered at the application layer). Also, application layer services that fall within the telecommunications management exception (e.g., DNS, caching, or security services offered as part of broadband Internet access service) similarly do not depend on add-on information services. As such, add-on information services are separated from the functions, like DNS, that facilitate transmission, and are not "inextricably intertwined" with broadband Internet access services.

379. Other recent developments also show that consumers' use of today's Internet to access content and applications is not inextricably intertwined with the underlying transmission component. For instance, consumers are increasingly accessing content and applications on the Internet using Wi-Fi-only devices that take advantage of Wi-Fi hotspots not provided by the consumer's underlying broadband service provider.[1073] Similarly, consumers can sometimes use Wi-Fi-enabled smartphones not only to access the Internet via their service provider's mobile broadband network or Wi-Fi hotspots, but also using Wi-Fi hotspots offered by premises operators. Further, many consumers purchase content that can be accessed over any of a number of different transmission paths and devices over the Internet – for example, video over a fixed broadband connection to a flat-screen television, or over a Wi-Fi router connected to a fixed broadband connection to a tablet, or over a mobile broadband network to a smartphone.

380. In addition, countless third parties are now embedding electronics, software, sensors, and other forms of connectivity into a wide variety of everyday devices, such as wearables, appliances, thermostats, and parking meters that rely on Internet connectivity to provide value to the American consumer,[1074] including through mHealth, Smart Grid, connected education, and other initiatives.[1075] The

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[1069] *Brand X*, 545 U.S. at 998.

[1070] *See supra* Section IV.C.2.

[1071] *See, e.g.*, Douglas Sicker & Joshua Mindel, *Refinements of a Layered Model for Telecommunications Policy*, 1 J. Telecomm. & High Tech L. 69, 86-88 (2002); Rob Frieden, *Adjusting the Horizontal and Vertical in Telecommunications Regulation: A Comparison of the Traditional and a New Layered Approach*, 55 Fed. Comm. L.J. 207 (2003).

[1072] *See, e.g.*, Andrew S. Tanenbaum & David J. Wetherall, Computer Networks, 29 (Prentice-Hall, 5th ed. 2011) ("The purpose of each layer is to offer certain services to the higher layers while shielding those layers from the details of how the offered services are actually implemented. In a sense, each layer is a kind of virtual machine, offering certain services to the layer above it.").

[1073] *See, e.g.*, OTI Comments at 27-28.

[1074] *See, e.g.*, Consumer Reports, *What Is The Internet of Things, and Why Should You Care?* (Aug. 14,2014), http://www.consumerreports.org/cro/news/2014/08/what-is-the-internet-ofthings/index.htm (describing the Internet of Things and predicting its widespread adoption by consumers in the near future); Cisco, *The Zettabyte Era: Trends and Analysis* at 1 (June 10, 2014), http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-

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growth of the Internet of Things is yet another clear indication that devices and services that consumers use with today's Internet are not inextricably intertwined with the underlying transmission component.

381. Finally, we observe that the Commission itself recognized in 2005 that the "link" between the transmission element of broadband Internet access service and the information service was not inextricable. Specifically, the 2005 *Wireline Broadband Classification Order* granted wireline broadband providers the option of offering the transmission component of broadband Internet access as a distinct common carrier service under Title II on a permissive basis,[1076] and a large number of rural carriers have exercised this option for nearly a decade.[1077] As NTCA explains, "[t]he fact that the Commission recognized as far back as 2005 that the transmission component *could* be separated out, and *the fact that it has been separated out* and offered separately on a tariffed basis by a large number of carriers undercuts any argument" that the transmission service and the services that ride atop that service are inextricably intertwined.[1078] Further, the 2007 *Wireless Broadband Classification Order* permitted providers of mobile broadband Internet access service to offer the "transmission component [of wireless broadband Internet access service] as a telecommunications service.[1079]

d. Opponents' Remaining Challenges Are Insubstantial

382. Some commenters contend that our ruling is contrary to a Congressional intent for keeping the Internet unregulated.[1080] We are not, however, regulating the Internet, *per se*, or any Internet applications or content. Rather, our reclassification of broadband Internet access service involves only the transmission component of Internet access service. As the D.C. Circuit has explained, "Congress did not choose between" competing "market-based" and "common-carrier, equal access" philosophies for broadband regulation; rather, "the FCC possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband—a statutory reality that assumes great importance when parties implore courts to overrule FCC decisions on this topic."[1081] We recognize that the Commission's previous classification decisions concluded that classifying broadband Internet access service as an information service would "establish a minimal regulatory environment" that would promote the Commission's goal of "ubiquitous availability of broadband to all Americans."[1082] We do not today abandon that goal but instead seek to promote it through a "light-touch" regulatory framework for broadband Internet access services under Title II. As noted earlier, there will be no rate

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networking-index-vni/VNI_Hyperconnectivity_WP.html (describing the "tangible growth" of the next wave of the Internet in which people, processes, data, and things connect to the Internet and each other).

[1075] *See, e.g.*, GSMA Connected Life, *Understanding the Internet of Things* (July 2014) (discussing how the Internet of Things has the potential to improve energy efficiency, security, health, education and other aspects of daily life).

[1076] *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14900-903, paras. 89-95.

[1077] *See* Free Press Comments at 46; Free Press Reply at 30; NTCA Comments at 9; NTCA Reply at 7-8.

[1078] NTCA Reply at 8; *see also* NTCA Comments at 9-10.

[1079] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5913, para. 32.

[1080] *See, e.g.*, USTelecom Reply at 25-26; Alcatel-Lucent Comments at 8; Free State Comments at 20 ("Congress did not intend for the Commission to subject broadband ISPs to Title II regulations. Nor did Congress intend for the Commission to use its forbearance authority as a loophole to evade Congress' intent to facilitate deregulatory approaches.").

[1081] *Ad Hoc Telecommunications Users Committee v. FCC*, 572 F.3d 903, 906-07 (D.C. Cir. 2009) (citing 47 U.S.C. § 1302).

[1082] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14855, para. 1; *Wireless Broadband Classification Order*, 22 FCC Rcd at 5902, para. 2.

regulation, no unbundling of last-mile facilities, no tariffing, and a carefully tailored application of only those Title II provisions found to directly further the public interest in an open Internet.[1083]

383. Several commenters argue that we should rely exclusively on industry self-regulation to promote the policies discussed above.[1084] While we applaud voluntary industry initiatives, we find the self-regulation option to be lacking in a number of respects. First, for the reasons discussed in our forbearance analysis in Section IV, we find that applying the few provisions in Title II necessary to implement the policy objectives identified above is in the public interest. We conclude that in the absence of credible Commission authority to step in when necessary in the public interest, voluntary measures will prove inadequate. Second, even the best-intentioned voluntary regulation initiatives are more likely to protect consumers when there is an expert agency that can provide a backstop to inadequate industry action that may result from collective action or coordination problems beyond any single firm's control.[1085]

384. Other commenters argue that classifying broadband Internet access service as a telecommunications service would impermissibly compel providers of broadband Internet access service to operate as common carriers.[1086] This argument misconstrues the nature of our ruling. Our decision to classify broadband Internet access service as a telecommunications service subject to the requirements of Title II derives from the characteristics of this service as it exists and is offered today. We do not "require" that any service "be offered on a common carriage basis,"[1087] but rather identify an existing service that is appropriately offered on a common carriage basis "by virtue of its functions,"[1088] as explained in detail above. Our classification decision is easily distinguished from the rules struck down in *Midwest Video II*, as those rules impermissibly attached common carrier obligations to services the Commission plainly lacked statutory authority to regulate in this manner.[1089] Congress has not spoken directly to the regulatory treatment of broadband Internet access services. Our classification of these services as telecommunications services is a permissible exercise of our delegated authority, one which we have adequately justified and defended based on the record before us. Because we have appropriately classified these services as telecommunications services, we do not run afoul of the Act's provision that a "telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services."[1090] We thus reject the argument that our ruling

[1083] *See also infra* Section IV.C.5 (discussing the effects of our classification decision on investment and innovation in the Internet ecosystem).

[1084] *See, e.g.*, CenturyLink Comments at 72 (asserting that because of concerns about the Commission's legal authority in this area, the Commission should "consider seeking first to address issues via referrals to appropriate technical advisory groups"); Roslyn Layton Comments at 18-19 (asserting that the Commission should eschew new rules and pursue a multi-stakeholder governance model backed by the FTC's antitrust authority); Bright House Comments at 26-27; Comcast Comments at 70; Verizon Comments at 17; Telefonica Internacional USA Comments at 6; TechFreedom & ICLE Legal Comments at 99-100.

[1085] *See, e.g.*, Mark Cooper/CFA Comments at 3 (arguing that it is "a mistake to believe that [multi-stakeholder, self-regulatory institutions] would have succeeded without the strong action of the FCC to create and preserve the space of freedom for entrepreneurial experimentation").

[1086] *See* Verizon Title II White Paper at 1-5; NCTA Dec. 23, 2014 *Ex Parte* Letter at 11-12; Letter from Gary L. Phillips, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 and 10-127 (filed Feb. 2, 2015).

[1087] Verizon Title II White Paper at 4.

[1088] *See NARUC I*, 525 F.2d at 644.

[1089] *FCC v. Midwest Video Corp.*, 440 U.S. 689, 705 (1979) (*Midwest Video II*); *see also Verizon*, 740 F.3d at 651-52 (discussing *Midwest Video II*).

[1090] 47 U.S.C. § 153(51).

impermissibly compels common carriage.

385. Commenters also argue that the classification of broadband Internet access service as a telecommunications service results in this service being classified as both a telecommunications service and an information service, in violation of Congressional intent.[1091] We agree with commenters that these are best construed as mutually exclusive categories, and our classification ruling appropriately keeps them distinct. In classifying broadband Internet access service as a telecommunications service, we conclude that this service is not a functionally integrated information service consisting of a telecommunications component "inextricably intertwined" with information service components. Rather, we conclude, for the reasons explained above, that broadband Internet access service as it is offered and provided today is a distinct offering of telecommunications and that it is not an information service. As further explained above, any functional integration of DNS or caching with broadband Internet access service does not disrupt this classification, as both of those functions fall within the "telecommunications systems management exception" to the definition of an information service.[1092] Nor does the mere "packaging" of information services such as email with broadband Internet access service convert the latter into an information service.[1093] Our classification of broadband Internet access service therefore does not create any definitional inconsistency.

386. We also reject the argument[1094] that the classification of broadband Internet access service as an information service is implicit in the definition of "interactive computer service" set forth in section 230 of the Communications Act, a provision focused on the blocking and screening of offensive material.[1095] We find it unlikely that Congress would attempt to settle the regulatory status of broadband Internet access services in such an oblique and indirect manner, especially given the opportunity to do so when it adopted the Telecommunications Act of 1996.[1096] At any rate, the definition does not expressly classify broadband Internet access service, as we define that term herein, as an information service.[1097] We therefore find no basis in section 230 for reconsidering our judgment that this service is properly understood to be a telecommunications service, for the reasons explained above.

387. Finally, we disagree with the suggestion that our decision to "reclassify, to forbear, and to adopt rules grounded in Title II" is not a "logical outgrowth" of the *2014 Open Internet NPRM*.[1098] The approach we adopt today is *more* than a logical outgrowth of the NPRM; it is one that the NPRM

[1091] *See* AT&T Comments at 41-44; CenturyLink Comments at 41; Verizon Comments at 61-62.

[1092] *See supra* paras. 366-372.

[1093] *See supra* paras. 376-378; *see also Brand X*, 545 U.S. at 997-98.

[1094] *See* Pai Dissent at 32.

[1095] 47 U.S.C. § 230(f). (Defining the term to mean "any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet . . ."); *see also id*. § (a)(2) (referring to "the Internet and other interactive computer services").

[1096] *See* Telecommunications Act of 1996, Pub. L. No 104-104, 110 Stat. 56, §509.

[1097] For one thing, the phrase "any information service, system or access software provider", *see id*. § (f), may be broader in scope than the term "information service" as defined in section 3 of Act. To read the text otherwise would suggest that Congress intended the liability protections of section 230 to apply narrowly, excluding, for example, local exchange carriers that offered DSL, which as noted above was classified as a telecommunications service until 2005. *See supra* para. 39.

[1098] Pai Dissent at 19.

expressly identified as an alternative course of action.[1099] It is one on which the Commission sought comment in almost every section of the NPRM.[1100] It is one that several broadband Internet access service providers vigorously opposed in their comments in light of their own reading of the NPRM.[1101]

4. Mobile Broadband Internet Access Service is Commercial Mobile Service

388. As outlined above, we conclude that broadband Internet access service, whether provided by fixed or mobile providers, is a telecommunications service. We also find that mobile broadband Internet access service is a commercial mobile service. In any event, however, even if that service falls outside the definition of "commercial mobile service," we find that it is the functional equivalent of a commercial mobile service and, thus, not a private mobile service.

389. Congress adopted the commercial mobile service provisions in the Act with the goal of creating regulatory symmetry among similar mobile services.[1102] Section 332(d)(1) of the

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[1099] *See* Pai Dissent at 20-21 (quoting *2014 Open Internet NPRM,* 29 FCC Rcd at 5613-14, paras. 149-50).

[1100] Thus, at the very outset, in addition to "the [section 706] blueprint offered by the D.C. Circuit" on which the dissent now seeks to focus, Pai Dissent at 16-19, the Commission made clear that in looking for the "best approach to protecting and promoting Internet openness," it "will seriously consider the use of Title II," "seeks comment on the benefits of both . . ., including the benefits of one approach over the other," and "emphasize[s] . . . that the Commission recognizes that both section 706 and Title II are viable solutions and seek[s] comment on their potential use." *See, e.g., NPRM,* 29 FCC Rcd at 5563, para. 4. *See also id.* at 5593, 5595-96, paras. 89, 96 (seeking comment on whether to adopt a no-blocking rule "that does not allow for priority agreements with edge providers" and how to do so consistent, *inter alia,* with Title II), *id.* at 5600, para. 112 (seeking comment on alternative to standard of commercial reasonableness), *id.* at 5604, para. 121 (seeking comment on unreasonable discrimination standard, including application of sections 201 and 202), *id.* at 5612-16, paras. 148-155 (specific questions about applicability of Title II and forbearance approaches, including forbearance as to specific Title II provisions). The *NPRM* in this proceeding is thus nothing like the *NPRM* that was at issue in *Prometheus*. *Prometheus Radio Project v. FCC*, 652 F.3d 431, 445-46, 450-51 (3rd Cir. 2011). We also note that, under the APA, notice-and-comment rulemaking requirements apply only to the extent that we herein adopt legislative rules. 5 U.S.C. §§ 553(b)(A), 553(d)(2).

[1101] *See e.g.*, AT&T Comments at 39-72; Bright House Comments at 20-29; CenturyLink Comments at 36-51; Charter Comments at 13-21; Comcast Comments at 42-67; Cox Comments at 30-31; Frontier Communications Comments at 2-4; Time Warner Comments at 9-23; T-Mobile Comments at 18-24; Verizon Comments at 46-69. And parties on the other side of the issue just as vigorously argued in support of our approach in their comments. *See, e.g.*, Ad Hoc Comments at 2-7; CDT Comments at 8-16; Cogent Comments at 9-12; Common Cause Comments at 13-16; Consumers Union Comments at 10; EFF Comments at 13-17; Etsy Comments at 9; Free Press Comments at 54-90; New America Foundation Comments at 22-27; Public Knowledge Comments at 60-104; WGAW Comments at 28-31. Dissents to the NPRM likewise reflect that this approach was on the table. *See 2014 Open Internet NPRM*, 29 FCC Rcd at 5653-55 (dissenting Statement of Commissioner Pai) (recognizing "[i]t's not news that people of good faith disagree" on the right approach, stating that "[s]ome would like to regulate broadband providers as utilities under Title II," and discussing the scope of Title II's "unjust or unreasonable discrimination" requirement, the consequences of reclassification under Title II, and the alleged regulatory uncertainties posed under either section 706 "or Title II").

[1102] *Second Report and Order Implementing Sections 3(n) and 332 of the Communications Act, as Amended by Section 6002(b) of the Omnibus Reconciliation Act of 1993*, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411, 1413, para. 2 (1994) (*Second CMRS Report and Order*). In describing the background against which Congress enacted the Omnibus Budget and Reconciliation Act of 1993, the Commission noted that it had traditionally classified mobile services into the categories of public mobile services subject to common carrier regulation and private land mobile services, such as taxi dispatch services, developed to provide service tailored to the needs of particular groups, and not subject to common carrier regulation. *Id*. at 1414, paras. 3-4. The Commission noted that the series of its decisions in this context created the prospect of direct competition between private land mobile services and similar common carrier services under disparate regulatory regimes, for example, by permitting the predecessor of Nextel to develop an SMR system "comparable or superior to cellular in quality."

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Communications Act defines "commercial mobile service" as "any mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission."[1103] We find that mobile broadband Internet access service meets this definition. First, we find that mobile broadband Internet access service is a "mobile service"[1104] because subscribers access the service through their mobile devices. Next, we find that mobile broadband Internet access service is provided "for profit" because service providers offer it to subscribers with the intent of receiving compensation.[1105] We also conclude the mobile broadband Internet access services are widely available to the public, without restriction on who may receive them.[1106]

390. Finally, we conclude that mobile broadband Internet access service is an interconnected service. Section 332(d)(2) states that the term "interconnected service" means "service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission) . . . ."[1107] The Commission has defined "interconnected service" as a service "that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network."[1108] The Commission has defined the term "public switched network" to mean "[a]ny common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the North American Numbering Plan in connection with the provision of switched services."[1109]

391. While mobile broadband Internet access service does not use the North American Numbering Plan, we conclude for the reasons set out below that we should update our definition of public switched network pursuant to the authority granted to the Commission in section 332 so that our definition reflects the current network landscape rather than that existing more than 20 years ago. In its Order defining the terms "interconnected" and "public switched network" the Commission concluded that the term "public switched network" should not be defined in a static way, recognizing that the network is continuously growing and changing because of new technology and increasing demand.[1110] The purpose

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Id. at 1415, para. 7. The Commission noted that, in revising Section 332, Congress "replaced traditional regulation of mobile service with an approach that brings all mobile service providers under a comprehensive, consistent, regulatory framework." *Id*. at 1417, para. 12.

[1103] 47 U.S.C. § 332(d)(1).

[1104] "Mobile service" is defined under the Commission's rules to mean "a radio communication service carried on between mobile stations or receivers and land stations, and by mobile stations communicating among themselves . . . ." 47 C.F.R. § 20.3.

[1105] The *Second CMRS Report and Order* defined the statutory phrase "for profit" to include: "any mobile service that is provided with the intent of receiving compensation or monetary gain." *See Second CMRS Report and Order*, 9 FCC Rcd at 1427, para. 43.

[1106] In the *Second CMRS Report and Order*, the Commission determined that a service is available "to the public" if it is "offered to the public without restriction in who may receive it." *Id*. at 1439, para. 65.

[1107] 47 U.S.C. § 332(d)(2). The commercial mobile service provisions of the Act are implemented under section 20.3 of the Commission's rules, which employs the term "commercial mobile radio service" (CMRS).

[1108] 47 C.F.R. § 20.3.

[1109] *Id.*

[1110] *Second CMRS Report and Order*, 9 FCC Rcd at 1436, para. 59; *see also* Letter from Michael Calabrese, Dir. Wireless Future Project, New America Open Technology Institute, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 8 (filed Jan. 27, 2015) (OTI Jan. 27, 2015 *Ex Parte* Letter) (arguing that "today there

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of the public switched network, the Commission noted, is "to allow the public to send or receive messages to or from anywhere in the nation."[1111] This quality of "ubiquitous access,"[1112] for which the NANP was viewed as a proxy in 1994, was consistent with the key distinction underlying the formulation of the CMRS definition by Congress—differentiating the emerging cellular-based technology for "commercial" SMR service being deployed by Nextel's predecessor as a mass market service from the traditional "private" SMR dispatch services employed by taxi services and other private fleets.[1113] Today, consistent with our authority under the Act,[1114] and with the Commission's previous recognition that the "public switched network" will grow and change over time, we update the definition of public switched network to reflect current technology. Specifically, we revise the definition of "public switched network" to mean "the network that includes any common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the North American Numbering Plan, or public IP addresses,[1115] in connection with the provision of switched services." This definition reflects the emergence and growth of packet switched Internet Protocol-based networks. Revising the definition of public switched network to include networks that use standardized addressing identifiers other than NANP numbers for routing of packets recognizes that today's broadband Internet access networks use their own unique addressing identifier, IP addresses, to give users a universally recognized format for sending and receiving messages across the country and worldwide.[1116] We find that mobile broadband Internet access service is interconnected with the "public switched network" as we define it today and is therefore an interconnected service.[1117]

392. Some commenters contend that the Commission is barred from taking any actions that would change the definition of "public switched network." CTIA, for example, argues that a revision to the definition of "public switched network" is "beyond the scope of this rulemaking" because the *2014 Open Internet NPRM* "only asks whether mobile broadband falls within the definition of CMRS and does not propose any changes to the well-established definitions in section 20.3 of the FCC's rules."[1118] AT&T

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is no networked service more open, interconnected and universally offered than broadband Internet access service, whether fixed or mobile").

[1111] *Second CMRS Report and Order*, 9 FCC Rcd at 1436, para. 59.

[1112] *Id.* at 1437, para. 60.

[1113] *See id.* at 1413-17, paras. 1-10.

[1114] Section 332(d)(2) of the Communications Act states that "the term 'interconnected service' means service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission) . . . ." 47 U.S.C. §332(d)(2).

[1115] Public IP addresses are globally routable unicast IP addresses. *See* Internet Engineering Task Force, The Internet Numbers Registry System, RFC 7020 (Aug. 2013), https://tools.ietf.org/html/rfc7020 (discussing non-reserved globally unique unicast IP addresses assigned through the Internet Numbers Registry System).

[1116] This definitional change to our regulations in no way asserts Commission jurisdiction over the assignment or management of IP addressing by the Internet Numbers Registry System.

[1117] As discussed further below, we also find that mobile broadband is an interconnected service because it gives its users the capability to send and receive communications from all other users of the Internet.

[1118] CTIA Reply at 44-45; *see also* CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach at 5-9; Letter from Scott K. Bergmann, Vice Pres. Reg. Affairs, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 14 (filed Feb. 10, 2015) (CTIA Feb. 10, 2015 *Ex Parte* Letter).

similarly argues that the Commission has not provided sufficient public notice.[1119] CTIA also argues that, even if there were notice, the Commission could not interpret the definition of "public switched network" to include the Internet, stating that "[w]hile Section 332 directs the Commission to define 'public switched network' by regulation, that definition must be consistent with the statutory text and congressional intent. Here, whatever limited discretion the Commission has as to that definition, it cannot be interpreted broadly enough to cover the broadband Internet."[1120] Verizon agrees that the *NPRM* did not provide notice that the Commission might change its regulations or their interpretation. In addition, Verizon argues that, although the Commission is statutorily authorized to define "public switched network," the definition must still be consistent with the statutory text and congressional intent. Accordingly, Verizon contends, "no matter how the Commission may redefine the 'public switched network' any new definition still would need to be anchored to the public switched telephone networks, which is what Section 332 was designed to address."[1121]

393. Contrary to these arguments, we find that revising the definition of "public switched network" and classifying mobile broadband Internet access service as a commercial mobile service is a logical outgrowth of the proposals in the *2014 Open Internet NPRM*.[1122] As discussed above, in the *NPRM*, the Commission proposed relying on section 706 of the Telecommunications Act of 1996 for legal authority to adopt rules to protect the open Internet but indicated that it would also seriously consider the use of Title II of the Communications Act as a basis for legal authority.[1123] The Commission sought comment on whether, in the event that it decided to reclassify broadband Internet access service under Title II, mobile broadband Internet access service would fit within the definition of "commercial mobile service" under section 332 of the Act and the Commission's rules implementing that section.[1124] In addition, the *NPRM* noted that the Commission's *Broadband Classification NOI* also asked whether the Commission should revisit its classification of wireless broadband Internet access services, noted that the NOI docket "remains open," and directed that the record be refreshed in that proceeding "including the inquiries contained herein."[1125] In the *Broadband Classification NOI*, the Commission sought comment on "legal issues specific to . . . wireless services that bear on their appropriate classification."[1126] More specifically, it asked "which of the three legal frameworks" described therein (which included a Title II approach) "would best support the Commission's policy goals for wireless broadband."[1127] In

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[1119] Letter from Gary L. Phillips, General Attorney & Assoc. Gen. Counsel, AT&T Services, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2 (filed Jan. 8, 2015) (AT&T Jan. 8, 2015 *Ex Parte* Letter).

[1120] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 7.

[1121] Verizon Title II White Paper at 15; *id.* at 13-15; *see also* Letter from William H Johnson, Vice Pres. & Assoc. Gen. Counsel, Verizon to Marlene H Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2-3 (filed Dec. 24, 2014) (Verizon Dec. 24, 2014 *Ex Parte* Letter).

[1122] *See Crawford v. FCC*, 417 F.3d 1289, 1295 (D.C. Cir. 2005) (the rule ultimately adopted may be a "logical outgrowth" of the original proposal).

[1123] *2014 Open Internet NPRM*, 29 FCC Rcd at 5563, para. 4.

[1124] *Id.* at 5614, para. 150.

[1125] *Id*. at 5613, para. 149 n.302. *See also* 79 Fed. Reg. 37448-01, 37468 (2014); *Wireline Competition Bureau Seeks to Refresh the Record in the 2010 Proceeding on Title II and Other Potential Legal Frameworks for Broadband Internet Access Service*, GN Docket No. 10-127, Public Notice, 29 FCC Rcd 5856 (Wireline Comp. Bur. 2014).

[1126] *Broadband Classification NOI*, 25 FCC Rcd at 7867, para. 2.

[1127] *Id*. at 7908, para. 102.

particular, it asked "[t]o what extent should section 332 of the Act affect our classification of wireless broadband Internet services?"[1128] In the *2014 Open Internet NPRM*, the Commission also noted that section 332 requires that wireless services that meet the definition of commercial mobile services be regulated as common carriers under Title II.[1129] The *NPRM* also asked about the extent to which forbearance should apply, if the Commission were to classify mobile broadband Internet access service as a CMRS service subject to Title II, and noted that the *Broadband Classification NOI* also asked whether the Commission could and should apply section 332(c)(1) as well as section 10 in its forbearance analysis for mobile services.[1130] The *2014 Open Internet NPRM* also sought comment on defining mobile broadband Internet access service and on application of Internet openness requirements to mobile broadband services.[1131]

394. We find that our decision today to classify mobile broadband Internet access service as both a telecommunications service under Title II and CMRS is a logical outgrowth of these discussions and requests for comments. The discussion and questions posed in the *2014 Open Internet NPRM* gave clear notice that the Commission was considering whether to reclassify mobile broadband Internet access under Title II as a telecommunications service and whether mobile broadband Internet access service would fit within the definition of "commercial mobile service" under the Act and the Commission's rules, including whether mobile broadband would meet the "interconnected service" component of the commercial mobile service definition. It was "reasonably foreseeable"[1132] that in answering that question the Commission would explore the scope of that component of the definition. Stated another way, "interested parties should have anticipated that the change [in that definition] was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period."[1133] While we think this proposition is clear from the questions posed by the *2014 Open Internet NPRM*, we further note that in this case mobile broadband providers "themselves had no problem understanding the scope of the issues up for consideration; several . . . submitted comments" on the issue.[1134] And, other parties commented that the Commission should update its definition of the term "public switched network."[1135] Moreover, as referenced above, evidence in the record shows that a number of parties have

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[1128] *Id*. at 7909, para. 104.

[1129] *2014 Open Internet NPRM*, 29 FCC Rcd at 5613-14, para. 149.

[1130] *Id.* at 5616, para. 155.

[1131] *Id.* at 5583-84, 5598, paras. 62, 105.

[1132] *Long Island Care at Home, Ltc. v. Coke*, 551 U.S. 158, 175 (2007).

[1133] *Agape Church, Inc. v. FCC*, 738 F.3d 397, 411 (D.C. Cir. 2013).

[1134] *National Ass'n of Mfrs. v. EPA*, 750 F.3d 921, 926 (D.C. Cir. 2014); *see also In re Polar Bear Endangered Species Act Listing*, 720 F.3d 354, 363 (D.C. Cir. 2013) ("Indeed, the [appellant] seems to have understood this [effect of the proposal]: it submitted comments" on the issue); CTIA Reply at 44 (arguing that the Commission "cannot upend the statutory scheme simply by 'updating' the definition of CMRS to determine that the use of IP addresses renders an offering 'interconnected,' as Vonage contends"); Verizon Title II White Paper at 15 (arguing that "no matter how the Commission may redefine the 'public switched network,' any new definition still would need to be anchored to public switched phone networks, which is what Section 332 was designed to address").

[1135] Vonage Comments at 41-44; *see also* Letter from Joshua M. Bobeck, Counsel to Vonage Holdings Group to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 2 (filed Jan. 15, 2015) (noting that the Commission "plainly put interested parties on notice that it was considering rules based in Title II and that it would explore alternative construction of the statutory terms applicable to mobile broadband under section 332"); Letter from Michael Calabrese, Dir., Wireless Future Project, New America, Open Technology Institute to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 5 (filed Nov. 10, 2014) (arguing that "since the statute does not limit the definition of 'public switched network' to one that uses the NANP, an update could add to the

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directly addressed the application of section 332(d) and the Commission's implementing rules to mobile broadband Internet access and thus have been aware that the Commission was considering taking action to update the definition of "public switched network" and reclassify mobile broadband Internet access as commercial mobile service.[1136]

395. We also disagree with arguments that we are barred from updating the definition of public switched network to include networks that use addressing identifiers beyond NANP numbers associated with traditional telephone networks. CTIA, Verizon, and AT&T argue that the history of the legislation that defined "commercial mobile service" indicates that Congress intended the term "public switched network" to mean the "public switched *telephone* network." CTIA, for example, argues that when Congress used the term "public switched network" in 1993, "it did so knowing that the Commission and the courts routinely used that term interchangeably with 'public switched telephone network'" and that "[i]t is axiomatic that, when Congress 'borrows' a term of art that has been given meaning by the courts or the relevant agency, it 'intended [that term] to have its established meaning.'"[1137] It argues also that "the Conference Report accompanying the legislation confirms that, although Congress used the term 'public switched network,' it viewed that term as synonymous with 'the [p]ublic switched telephone network.'"[1138] AT&T notes that Congress "used the term 'the public switched network'" and that "Congress's use of the definite article 'the' and the singular 'network' makes clear that it was referring to a single 'public switched network'"[1139] The parties also argue that the text of the FirstNet public safety legislation supports their argument because it distinguishes between the "public switched network" and the "public Internet.[1140] AT&T contends also that the text of section 230 supports its views.[1141]

396. We agree with other commenters that these arguments do not give sufficient weight to Congressional intent as reflected in the text of the statute itself.[1142] As noted above, section 332(d)(2) of

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rather self-evident notion that in 2014, (unlike 1993) the Internet and its IP addressing system is now the predominant network").

[1136] *See, e.g.*, CTIA Reply at 44-45; CTIA Dec. 22, 2014 *Ex Parte* Letter; CTIA Feb. 10, 2015 *Ex Parte* Letter; Verizon Title II White Paper at 13-15; AT&T Feb. 2, 2015 *Ex Parte* Letter; Letter from Jonathan Spalter, Chairman, Allison Remsen, Exec. Director, Rachael Bender, Policy Director, Mobile Future to Marlene H. Dortch, Secretary, FCC, GN Dockets 14-28, 10-127 (filed Dec. 5, 2014); Letter from Matt Wood, Policy Director, Free Press to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 (filed Dec. 17, 2014); Letter from Michael Calabrese, Dir, Wireless Future Project, Open Technology Institute, New America Foundation, Erik Stallman, Dir., Open Internet Project, Center for Democracy and Technology, and Harold Feld, Sen. Vice Pres. Public Knowledge, to Marlene H. Dortch, Secretary, FCC GN Docket Nos. 14-28, 10-127 (filed Dec. 11, 2014) (New America, CDT, PK, Dec. 11, 2014 *Ex Parte* Letter).

[1137] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 7-8.

[1138] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 8-9; CTIA Feb. 10, 2015 *Ex Parte* Letter at 15 (arguing that Congress demonstrated that "it viewed the terms as interchangeable by describing the legislation as requiring interconnection with the 'public switched telephone network' in the Conference Report"); *see also* AT&T Feb. 2, 2015 *Ex Parte* Letter at 1.

[1139] AT&T Feb. 2, 2015 *Ex Parte* Letter at 2; *see also* CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 8.

[1140] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 8; Verizon Dec. 24, 2014 *Ex Parte* Letter at 2.

[1141] *See* 47 U.S.C. §230(b)(2); AT&T Feb. 2, 2015 *Ex Parte* Letter at 2-3.

[1142] *See, e.g.*, Letter from Harold Feld, Senior Vice Pres., Public Knowledge to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 1 (filed Jan. 15, 2015) (arguing that "[i]f the term 'public switched network' was so well understood, why did Congress explicitly require that the *Commission* define it") (emphasis in original); OTI Jan. 27, 2015 *Ex Parte* Letter at 5 (arguing that "Congress could have referred specifically to the 'telephone'
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the Act uses the term "public switched network" rather than "public switched telephone network." Moreover, as CTIA, Verizon, and AT&T acknowledge, the statute expressly delegates authority to the Commission to define the term "public switched network." While we agree with CTIA that the delegation of authority does not provide boundless discretion,[1143] we find that what is clear from the statutory language is not what the definition of "public switched network" was intended to cover but rather that Congress expected the notion to evolve and therefore charged the Commission with the continuing obligation to define it. In short, by defining such terms by reference to the way they "are defined by regulation by the Commission," Congress expressly delegated this policy judgment to the Commission.[1144] As noted above, in defining the terms "interconnected service" and "public switched network," the Commission concluded that the term "public switched network" should not be defined in a static way and recognized that the network is continuously growing and changing because of new technology and increasing demand. The Commission expressly rejected calls in 1994 to define the public switched network as the "public switched telephone network" finding that a broader definition was consistent with Congress's decision to use the term "public switched network," rather "than the more technologically based term 'public switched telephone network.'"[1145] Today, we build upon this analysis and update our definition of "public switched network" to reflect changes in technology. Reflecting the foregoing changes in technology and telecommunications infrastructure, our definition contemplates a single network comprised of all users of public IP addresses and NANP numbers, and not two separate

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network (or at least used the word 'telephone') if it intended to strictly limit the future services that the Commission might designate as CMRS-but instead it cast the provision more broadly").

[1143] *See* CTIA Feb. 10, 2015 *Ex Parte* Letter at 15.

[1144] Thus, the question here is not one of interpreting certain terms used by Congress as one of the dissents states (Pai Dissent at 45-51), but rather of the exercise of the discretion explicitly granted by Congress to the Commission to define these terms.

[1145] *Second CMRS Report and Order*, 9 FCC Rcd at 1436, para. 59. Contrary to one of the dissenting statements, (Pai Dissent at 46-47 & n.337), the Commission made clear it was not limiting the term "public switched network" to the traditional network. First, as noted above, it rejected that view in favor of the position of other commenters that "the network should not be defined in a static way," an interpretation it found more consistent with the determination by Congress not to employ the term "public switched telephone network." Second, it stated that any switched common carrier service that is interconnected with the traditional local or interexchange switched network would be defined "as part of" the public switched network "for purposes of our definition," *id.* at 1436-37. Even as early as 1994, the comments on which the Commission relied for its definition, *id.* at 1437, para. 60, made this very point. Comments of Nextel Communications, Inc. at 11 ("In the not-too-distant future, telephony will consist of 'networks of networks' linking together landline, fiber, wireless, microwave and satellite systems," so that the definition should include "any services – whether landline or wireless – offered on a co-carrier basis to enhance or extend the reach and functionalities of traditional local exchange or interexchange facilities"); Comments of Pacific Bell and Nevada Bell at 5 (current definition is "a vestige of telecommunications history" and "needs to be revised," given "revolution" in the industry in which "new providers and new services appear almost weekly" that are interconnected with the traditional PSN and "are substitutes for components of the PSN"). Comments of other wireless providers, with whom the Commission agreed about avoiding "a static way" of defining the network, *id.* at 1436, para. 59, made the same point. *See, e.g.,* Comments of Bell Atlantic Cos. at 6, 9 & n.9 (citing Commission's "poor experience" in trying to apply definitions, arguing that "[b]road definitions are essential," emphasizing that the Commission "cannot anticipate all such [new PCS] technologies . . . interfacing with the network," and urging it to "discard the use of the anachronistic term 'public switched telephone network' ('PSTN')"); Comments of NYNEX Corp. at 8-9 (definition should not include "only the traditional LEC-provided public switched telephone network ('PSTN')," so as to "reflect today's competitive environment for wireless services" and the "quickly and constantly evolving concept" of the network, in which cable, cellular, and PCS systems and other services could, "for millions of people, make access to the 'old PSTN' unnecessary").

networks as AT&T argues.[1146] We find that this action is consistent both with the text of the statute and Congressional intent.[1147]

397. We recognize that, in the 2007 *Wireless Broadband Classification Order*, the Commission previously concluded that section 332 —"as implemented by the Commission's CMRS rules"— did not contemplate wireless broadband Internet access service "as provided today,"[1148] citing the *Second CMRS Report and Order*'s finding that "'commercial mobile service' must still be interconnected with the local exchange or interexchange switched network as it evolves."[1149] The Commission also found that mobile broadband Internet access was not an "interconnected service" based on its reading of the Commission's existing rule, because the service did not provide its users with the capability to reach all other users of the public switched network.[1150] In addition, in 2011, in its order adopting data roaming requirements, the Commission defined services subject to the data roaming rule as services that are not interconnected with the public switched network.[1151] However, the 2007 *Wireless Broadband Classification Order* (on which the 2011 *Data Roaming Order* also relied[1152]) was premised both on its view of the service "as provided today"[1153] and on "an internal contradiction"[1154] that a finding that

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[1146] *See* AT&T Feb. 2, 2015 *Ex Parte* Letter at 2; *see also* CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 8.

[1147] We are not persuaded by AT&T's arguments that rely, not on the foregoing language or purpose of the 1993 statute at issue, but on subsequent statutes enacted for different purposes in 1996 and 2012. *See, e.g.*, *Gutierrez v. Ada,* 528 U.S. 250, 257-58 (2000). Quite apart from canons of statutory construction, this argument disregards the signal difference in Section 332(d), which delegates the question of the scope of its terms to the Commission in light of its experience and market developments over time. We note, however, that AT&T's reliance on the "policy" of the 1996 Act reflected in Section 230 is similar to one that Verizon made but that was not found by the *Verizon* court to be a bar to its conclusion that "section 706 grants the Commission authority to promote broadband deployment by regulating how broadband providers treat edge providers." *Verizon*, 740 F.3d at 649; *see* Verizon Br. At 23, 27-28, *Verizon v. FCC*, No. 11-1355 (D.C. Cir. filed Jan. 18, 2013).

[1148] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5918, para. 45, n.119.

[1149] *Id*.

[1150] *Id.* at 5917-18, para. 45.

[1151] The Commission defined "commercial mobile data service" which is subject to the data roaming rule as "any mobile data service that is not interconnected with the public switched network." *See Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265, Second Report and Order, 26 FCC Rcd 5411, 5412, para. 1 n.1 (2011) (*Data Roaming Order*). We note that if a mobile service is not interconnected to the public switched network (as updated herein) and otherwise meets the definition of "commercial mobile data service" in section 20.3 of the Commission's rules, it will continue to be subject to the data roaming rules. *See* 47 C.F.R. §§ 20.3, 20.12(e); *see also infra* Section V.C.2.i (discussing applicability of roaming requirements to mobile broadband Internet access services). Opponents of reclassifying mobile broadband Internet access services have argued that the D.C. Circuit's decisions on data roaming and on the *2010 Open Internet Order* bar the Commission from reclassifying mobile broadband Internet access as commercial mobile service. *See* CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 4-5 (citing the court's finding that mobile broadband services were "statutorily immune, perhaps twice over," from common carrier treatment (citing *Cellco P'ship v FCC*, 700 F.3d 534, 538 (D.C. Cir. 2012)). First, we note that the issue of revising the Commission's definitions was neither raised nor discussed in the data roaming or open Internet decisions. Moreover, contrary to these arguments, we find that the Court's acceptance of the Commission's previous decisions based on its existing definitions does not preclude the Commission from revisiting and revising its definitions, as expressly permitted by the language of Section 332. *See Brand X*, 545 U.S. at 981 (finding that "[a]gency inconsistency is not a basis for declining to analyze the agency's interpretation under the *Chevron* framework").

[1152] *See Data Roaming Order*, 26 FCC Rcd at 5414, para. 6 n.12.

[1153] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5918, para. 45 n.119.

wireless broadband Internet access was a commercial mobile would have caused with the finding that it was an "information service." Moreover, in neither instance did the Commission consider whether it should revise the definition of "public switched network," on which its conclusion in the 2007 *Wireless Broadband Classification Order* was premised.

398. Today, we update the definition of "public switched network" to reflect current technology and conclude that mobile broadband Internet access is an interconnected service. First, as outlined above, we find that mobile broadband is an "interconnected service" because it interconnects with "public switched network" as we define it today. We find also that mobile broadband is an interconnected service because it gives its users the capability to send and receive communications from all other users of the Internet. In defining the term "interconnected service" in the *Second CMRS Report and Order*, the Commission indicated its belief that, by using the term "interconnected service," Congress intended to focus on whether mobile services "make interconnected service broadly available through their use of the public switched network."[1155] In addition, the Commission noted that Congress's purpose was to "ensure that a mobile service that gives its customers the capability to communicate or to receive communications from other users of the public switched network should be treated as a common carriage offering." This was by contrast with the alternative "private mobile service" classification, which by statute includes services not "effectively available to a substantial portion of the public."[1156] Mobile broadband Internet access service fits the former classification as millions of subscribers use it to send and receive communications on their mobile devices every day. In sharp contrast to 2007 when the Commission characterized mobile broadband Internet access services as being in a nascent stage,[1157] today the mobile broadband marketplace has evolved such that hundreds of millions of consumers now use mobile broadband to access the Internet. For example, as noted earlier, by November 2014, 73.6 percent of the entire U.S. age 13+ population was communicating with smart phones, a figure which has continued to rise rapidly over the past several years.[1158] In addition, the number of mobile connections already exceeds the U.S. population[1159] and Cisco forecasts that by 2019, North America will have nearly 90% of its installed based converted to smart devices and connections, and smart traffic will grow to 97% of the total global mobile traffic.[1160] Mobile broadband subscribers, who use the same devices to receive voice and data communications, can also send or receive communications to or from anywhere in the nation, whether connected with other mobile broadband subscribers, fixed broadband subscribers, or the

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[1154] *Id.* at 5916, para. 41.

[1155] *Second CMRS Report and Order*, 9 FCC Rcd at 1434, para. 54.

[1156] 47 U.S.C. § 332(d)(1), (d)(3).

[1157] *Wireless Broadband Classification Order*, 22 FCC Rcd at 5921-22, para. 59.

[1158] *See* comScore, *comScore Reports September U.S. Smartphone Subscriber Market Share*, Nov. 6, 2014, http://www.comscore.com/Insights/Market-Rankings/comScore-Reports-September-2014-US-Smartphone-Subscriber-Market-Share (last visited Feb. 4, 2015).

[1159] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 13-135, Seventeenth Report, 29 FCC Rcd 15311, 15345-46, para. 66 (Wireless Tel. Bur. 2014) (*Seventeenth Annual Wireless Competition Report*). The total U.S. population of all ages, as of the end of 2013 was estimated by the Census Bureau to be 317.2 million. *See* United States Census Bureau, *U.S. and World Population Clock*, http://www.census.gov/popclock/ (last visited Feb. 5, 2015). The total number of mobile connections as of the end of 2013 was 335.7 million. *Seventeenth Annual Wireless Competition Report*, 29 FCC Rcd at 15319-20, Chart II.B.1.

[1160] Cisco, *Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update 2014-2019*, at 9-10, http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.html#Trend_1_Continuing_Shift_to_Smarter (last visited Feb. 4, 2015).

hundreds of millions of websites available to them over the Internet. This evidence of the extensive changes that have occurred in the mobile marketplace demonstrates the ubiquity and wide scale use of mobile broadband Internet access service today.

399. Today we update the definition of "public switched network" to reflect current mass market communications network technologies and configurations, and the rapidly growing and virtually universal use of mobile broadband service. It also is more consistent with Congressional intent to recognize as an "interconnected service" today's broadly available mobile broadband Internet access service, which connects with the Internet and provides its users with the ability to send and receive communications from all other users connected to the Internet, (whether fixed or mobile).[1161] As CTIA recognizes,[1162] Congress's intent in enacting section 332 was to create a symmetrical regulatory framework among similar mobile services that were made available "to the public or . . . to such classes of eligible users as to be effectively available to a substantial portion of the public."[1163] Given the universal access provided today and in the foreseeable future by and to mobile broadband and its present and anticipated future penetration rates in the United States, we find that our decision today classifying mobile broadband Internet access as a commercial mobile service is consistent with Congress's objective. As noted above, that is a policy judgment that section 332(d) expressly delegated to the Commission, consistent with its broad spectrum management authority under Title III.[1164]

400. Moreover, we agree with commenters who argue that mobile broadband Internet access service meets the definition of interconnected service for a wholly independent reason:[1165] because— even under our existing definition of "public switched network" adopted in 1994— users have the "capability," as provided in section 20.3 of our rules, to communicate with NANP numbers using their broadband connection through the use of VoIP applications.[1166] Other parties disagree, arguing that, regardless of the attributes of VoIP services that ride over broadband Internet access networks, broadband Internet access service itself does not offer the ability to reach all NANP endpoints. These parties note also that the

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[1161] Mobile broadband is an increasingly important pathway to the Internet, and many households subscribe to both fixed and mobile services as distinct product offerings with contrasting advantages in speed, usage limits, and mobility. *See 2015 Broadband Progress Report* at para. 120; *see also* Public Knowledge Comments at 18-19 (arguing that mobile broadband is not a substitute for fixed broadband services, so its increased adoption does not "change the essential points about terminating monopolies").

[1162] *See* CTIA Feb. 10, 2015 *Ex Parte* Letter at 16 (arguing that "Congress's intent was not to maximize the application of common carrier requirements" but rather to "ensure that new offerings that were similar to preexisting cellular offerings be treated alike ").

[1163] 47 U.S.C. § 332(d)(1).

[1164] *See Cellco P'ship v. FCC*, 700 F.3d 534, 541-42 (D.C. Cir. 2012) (citing *NBC v. United States*, 319 U.S. 190 (1943). As the Supreme Court recognized in *NBC* with respect to the Commission's Title III authority, Congress did not "frustrate the purposes for which the Communications Act of 1934 was brought into being by attempting an itemized catalogue of the specific manifestations of the general problems for the solution of which" it established the Commission, for the purpose of "regulating a field of enterprise the dominant characteristic of which was the rapid pace of its unfolding." 319 U.S. at 219.

[1165] Contrary to the suggestion in the dissent, Pai Dissent at 44, our decision to reclassify mobile broadband Internet access service as CMRS also relies on our section 332(d) authority as described herein, and thus is not based exclusively on our analysis here of VoIP services. *See infra* para. 401.

[1166] *See* New America, CDT, PK, Dec. 11, 2014 *Ex Parte* Letter at 5; Letter from Michael Calabrese, Dir. Wireless Future Project, New America Open Technology Institute, to Marlene H. Dortch, Secretary, FCC GN Docket Nos. 10-127, 14-28, at 8 (filed Jan. 27, 2015); Letter from Sarah Morris, Michael Calabrese, Joshua Stager, Open Technology Institute, New America Foundation to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 10-127, 14-28, at 2-3 (filed Feb. 2, 2015).

Commission itself has previously concluded that mobile broadband Internet access, in and of itself, does not provide the ability to reach all other users of the public switched network.[1167]

401. We find that the Commission's previous determination about the relationship between mobile broadband Internet access and VoIP applications in the context of section 332 no longer accurately reflects the current technological landscape. Today, users on mobile networks can communicate with users on traditional copper based networks and IP based networks, making more and more networks using different technologies interconnected. In addition, mobile subscribers continue to increase their use of smartphones and tablets and the significant growth in the use of mobile broadband Internet access services has spawned a growing mobile application ecosystem.[1168] The changes in the marketplace have increasingly blurred the distinction between services using NANP numbers and services using public IP addresses and highlight the convergence between mobile voice and data networks that has occurred since the Commission first addressed the classification of mobile broadband Internet access in 2007. Today, mobile VoIP, as well as over-the-top mobile messaging, is among the increasing number of ways in which users communicate indiscriminately between NANP and IP endpoints on the public switched network.[1169] In view of these changes in the nature of mobile broadband service offerings, we find that mobile broadband Internet access service today, through the use of VoIP, messaging, and similar applications, effectively gives subscribers the capability to communicate with all NANP endpoints as well as with all users of the Internet.[1170]

402. We also note that, under the Commission's definition of "interconnected service" in section 20.3 of the rules, a service is interconnected even if ". . . the service provides general access to points on the public switched network but also restricts access in certain limited ways."[1171] Thus, the Commission's definition, while requiring that the interconnected service provide the "capability" for access to all other users of the public switched network, also recognizes that services that restrict access to the public switched network, in certain limited ways, should also be viewed as interconnected.[1172]

[1167] *See* CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 11-13; Verizon Dec. 24, 2014 *Ex Parte* Letter at 4; *Wireless Broadband Classification Order*, 22 FCC Rcd at 5917-18, para. 45.

[1168] *See* New America, CDT, PK, Dec. 11, 2014 *Ex Parte* Letter at 4-6.

[1169] *See Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, Report and Order, 28 FCC Rcd 7556, 7561-62, para. 15 (2013) (". . . the rapid proliferation of smartphones and other advanced mobile devices is providing consumers with numerous new options for IP-based Text applications. In fact, Informa estimates that 'By the end of 2013 . . . 41 billion OTT messages will be sent every day . . . .").

[1170] In support of arguments regarding interconnection, one of the dissents (Pai Dissent at 51 n.362), cites the inapposite *Time Warner Cable Request for Declaratory Ruling That Competitive Local Exchange Carriers May Obtain Interconnection under Section 251 of the Communications Act of 1934, as Amended, to Provide Wholesale Telecommunications Services to VoIP Providers*, Memorandum Opinion and Order, 22 FCC Rcd 3513, 3520-21, paras. 15-16 (Wireline Comp. Bur. 2007). Our interpretation here of the Commission's own rule as to what constitutes the "capability" to communicate with NANP endpoints is a completely different question from whether wholesale carriers are entitled to interconnection rights under Section 251 of the Act regardless of the regulatory status of VoIP services provided to end users, which was the issue addressed by the staff in the Time Warner Cable request for a Declaratory Ruling.

[1171] 47 C.F.R. § 20.3.

[1172] In adopting the definition of interconnected service in the *Second CMRS Report and Order*, the Commission recognized that interconnected services could be limited and noted that "[i]n defining interconnected service in terms of transmissions to or from 'anywhere' on the PSN, we note that it is necessary to qualify the scope of the term 'anywhere'; if a service that provides general access to points on the PSN also restricts calling in certain limited ways (*e.g.*, calls attempted to be made by the subscriber to '900' telephone numbers are blocked), then it is

(continued….)

Accordingly, to the extent that there is an argument that, even with an updated definition of public switched network, mobile broadband Internet access still would not meet the definition of interconnected because it would only enable communications with *some* rather than *all* users of the public switched network, *i.e.*, users with NANP numbers, we disagree and find that the Commission's rules recognize that interconnected services may be limited in certain ways. Our interpretation of the Commission's rules is consistent with their purpose, which is to ascertain whether the interconnected service is "broadly available."[1173] It is also most consistent with, and must be informed by, the key section 332(d) guidepost that Congress provided to the Commission in granting it authority to define these terms. This guidepost refers to a service available to "the public" or to such classes of eligible users as to be effectively available "to a substantial portion of the public."[1174] This focus of the inquiry on availability to the public or a substantial portion of it is also consistent with the specific purpose of the statute, which was to create a symmetrical regulatory framework for similar commercial services then being offered to consumers by cellular licenses and by SMR licensees who were using licenses that traditionally had been used to provide wireless service only to limited groups of users (e.g., taxi fleets).[1175]

403. Lastly, because today we classify mobile broadband Internet access service as a telecommunications service, designating it also as commercial mobile service subject to Title II is most consistent with Congressional intent to apply common carrier treatment to telecommunications services. Specifically, as in 2007, but for different reasons in light of our reclassification of the service as a "telecommunications service," we find that classifying mobile broadband Internet access service as a commercial mobile service is necessary to avoid a statutory contradiction that would result if the Commission were to conclude both that mobile broadband Internet access was a telecommunications service and also that it was not a commercial mobile service. A statutory contradiction would result from such a finding because, while the Act requires that providers of telecommunications services be treated as common carriers,[1176] it prohibits common carrier treatment of mobile services that do not meet the definition of commercial mobile service.[1177] Finding mobile broadband Internet access service to be commercial mobile service avoids this statutory contradiction and is most consistent with the Act's intent to apply common carrier treatment to providers of telecommunication services.[1178]

404. *Mobile Broadband Internet Access Service Is Not a Private Mobile Service.* Our

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our intention still to include such a service within the definition of 'interconnected service' for purposes of our Part 20 rules." *Second CMRS Report and Order*, 9 FCC Rcd at 1434-35, para. 55 n.104.

[1173] *See Second CMRS Report and Order*, 9 FCC Rcd at 1434, para. 54; *Wireless Broadband Classification Order*, 22 FCC Rcd at 5917, para. 44.

[1174] 47 U.S.C. § 332(d)(1).

[1175] *See, e.g.*, CTIA Feb. 10, 2015 *Ex Parte* Letter, at 16 ("Congress intended to ensure that new offerings that were similar to preexisting cellular offerings be treated alike"). To make this point clear, and in the exercise of our authority to "specif[y] by regulation" what services qualify as CMRS services that make interconnected service available to the public or to such classes of eligible users as to be effectively available to a substantial portion of the public, we have made a conforming change to the definition of Interconnected Service in section 20.3 of the Commission's rules.

[1176] 47 U.S.C. §153(51).

[1177] 47 U.S.C. §332(c)(2).

[1178] We disagree with CTIA's argument that section 332 mandates classification of mobile broadband Internet access service as private mobile service. *See* CTIA Feb. 10, 2015 *Ex Parte* Letter at 16. Section 332 sets forth the definition of commercial mobile service and requires that services meeting the definition of commercial mobile service be treated as common carriers. For the reasons described above, today, we find that mobile broadband Internet access service meets the definition of commercial mobile service.

conclusion that mobile broadband Internet access service is a commercial mobile service, through the application of our updated definition of "public switched network," leads unavoidably to the conclusion that it is not a private mobile service.[1179] Indeed, we believe that today's mobile broadband Internet access service, with hundreds of millions of subscribers and the characteristics discussed above, is not akin to the private mobile service of 1994, such as a private taxi dispatch service, services that offered users access to a discrete and limited set of endpoints. Even, however, if that were not so, there is another reason that mobile broadband Internet access service is not a private mobile service: it is the functional equivalent of a commercial mobile service, even under the previous definition of "public switched network." As with the policy judgments reflected in the other two definitional subsections of section 332(d) and described above, Congress expressly delegated authority to the Commission to determine whether a particular mobile service may be the functional equivalent of a commercial mobile service. Specifically, section 332 of the Act defines "private mobile service" as "any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service, as specified by regulation by the Commission."[1180] We find that mobile broadband Internet access service is functionally equivalent to commercial mobile service because, like commercial mobile service, it is a widely available, for profit mobile service that offers mobile subscribers the capability to send and receive communications on their mobile device to and from the public. Although the services use different addressing identifiers, from an end user's perspective, both are commercial services that allow users to communicate with the vast majority of the public.

405. CTIA, Verizon, and AT&T argue that mobile broadband Internet access service cannot be considered the functional equivalent of commercial mobile service. First, they argue that the Commission failed to provide notice that it might deem mobile broadband the functional equivalent of CMRS.[1181] Next, CTIA argues that "Congress intended the hallmark of CMRS to be the provision of interconnected service through use of the PSTN. No service lacking this essential attribute could amount to a functional equivalent of CMRS."[1182] Verizon argues that "because mobile broadband Internet access service cannot, on its own, be used to place calls to telephone numbers, and CMRS cannot be used to connect with (for example) Google's search engine or Amazon.com or any of the millions of other sources of online content, these two services are not substitutes, and cannot be deemed functionally equivalent."[1183] AT&T and CTIA argue that mobile broadband Internet access is not a substitute for CMRS and therefore is not the functional equivalent of CMRS.[1184] Verizon, CTIA, and AT&T argue that the issue of whether or not mobile VoIP applications or services themselves may be interconnected with the public switched network should have no bearing on the determination of whether mobile broadband Internet access service itself may be viewed as the functional equivalent of commercial mobile service.[1185]

406. We disagree with these arguments. First, for the reasons discussed above, we disagree with the parties' arguments regarding notice. We find that our decision today that mobile broadband Internet access service may be viewed as the functional equivalent of commercial mobile service is a logical outgrowth of the discussions and questions presented in the *2014 Open Internet NPRM*. As noted

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[1179] *See* 47.U.S.C. §332(d)(3).

[1180] *Id.*

[1181] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 13-15; Verizon Dec. 24, 2014 *Ex Parte* Letter at 5-6.

[1182] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 15.

[1183] Verizon Dec. 24, 2014 *Ex Parte* Letter at 6.

[1184] AT&T Jan. 8, 2015 *Ex Parte* Letter at 4-5; CTIA Feb. 10, 2015 *Ex Parte* Letter at 16.

[1185] CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 11-13; AT&T Jan. 8, 2015 *Ex Parte* Letter at 4; Verizon Dec. 24, 2014 *Ex Parte* Letter at 4-5.

above, our *2014 Open Internet NPRM* sought comment on the option of revising the classification of mobile broadband Internet access service and on whether it would fit within the definition of commercial mobile service under section 332 of the Act and the Commission's rules implementing that section, including section 20.3.[1186] Section 20.3 of the Commission's rules defines commercial mobile radio service as a mobile service that is: "provided for profit, i.e., with the intent of receiving compensation or monetary gain; an interconnected service; and available to the public or to such classes of eligible users as to be effectively available to a substantial portion of the public; or the functional equivalent of such a mobile service . . . ."[1187] Interested parties should have reasonably foreseen and in fact were aware that the Commission would analyze the functional equivalence of mobile broadband Internet access service as part of its consideration of whether it should revise the classification of mobile broadband Internet access and whether mobile broadband Internet access would fit within the definition of commercial mobile service under section 332. Indeed, several parties have submitted comments on this question.[1188]

407. We also disagree with CTIA's contention that, if a mobile service is not an interconnected service through the use of the public switched telephone network, it may not be considered the functional equivalent of commercial mobile service. This argument would render the functional equivalence language in the statute superfluous by essentially requiring a functionally equivalent service to meet the literal definition of commercial mobile service. We find that Congress included the functional equivalence provision in the statute precisely to address such new developments for services that may not meet the literal definition of commercial mobile service. We also disagree with Verizon that, because mobile broadband subscribers may use their service to communicate with a different and broader range of entities, the two services cannot be functionally equivalent. As noted above, both mobile broadband Internet access service and commercial mobile service provide their users with a service that enables ubiquitous access to the vast majority of the public. The fact that the services may *also* enable communications in other ways or with different groups does not make them less useful as substitutes for commercial mobile service. Moreover, regardless of whether providers may offer voice and data services separately,[1189] as discussed above, from both a technical as well as a consumer perspective, there are increasingly fewer distinctions or interoperability issues between these types of services. The marketplace changes that have occurred since the Commission first addressed the classification of mobile broadband Internet access service in 2007 support our finding that mobile broadband Internet access service offered to the mass market must be viewed today as the functional equivalent of commercial mobile service.

408. We recognize that, in the *Second CMRS Report and Order*, the Commission created a petition-based process for parties interested in challenging the classification of a particular service as private mobile service, and indicated that it would consider a variety of factors to determine whether a particular service is the functional equivalent of a CMRS service.[1190] Specifically, as AT&T and CTIA point out, the Commission said it would consider consumer demand for the service in question to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service, would prompt customers to change from one service to the other; and market research

[1186] *2014 Open Internet NPRM*, 29 FCC Rcd at 5614, para. 150.

[1187] 47 C.F.R. § 20.3.

[1188] *See, e.g.*, Public Knowledge Nov. 7, 2014 *Ex Parte* Letter at 3-5; CTIA Reply Comments at 46; CTIA Dec. 22, 2014 *Ex Parte* Letter, Attach. at 15-18; CTIA Feb. 10, 2015 *Ex Parte* Letter at 16.

[1189] *See* CTIA Feb. 10, 2015 *Ex Parte* Letter at 18 (also noting that providers typically treat voice minutes differently from data usage and allow users to adjust one without changing the other).

[1190] *Second CMRS Report and Order*, 9 FCC Rcd at 1447-48, paras. 79-80.

information identifying the targeted market for the service under review.[1191] Section 20.9 of the Commission's rules articulates the same standard for parties interested in challenging the classification of a service as a private mobile service.[1192] While we do not amend section 20.9's separate provision for a petition process in other contexts, for the reasons stated above related to today's widespread distribution and use of mobile broadband devices, we are amending section 20.3 to reflect our conclusion that mobile broadband Internet access service is the functional equivalent of CMRS.

5. The Reclassification of Broadband Internet Access Service Will Preserve Investment Incentives

409. In this section, we address potential effects of our classification decision on investment and innovation in the Internet ecosystem. Our classification of broadband Internet access service flows from the marketplace realities in how this service is offered.[1193] In reaching these conclusions, we also consider whether the resulting regulatory environment produces beneficial conditions for investment and innovation while also ensuring that we are able to protect consumers and foster competition. We find that classifying broadband Internet access service as a telecommunications service—but forbearing from applying all but a few core provisions of Title II—strikes an appropriate balance by combining minimal regulation with meaningful Commission oversight. This approach is based on the proven model Congress and the Commission have applied to CMRS, under which investment has flourished.

410. Based on our review of the record, the proven application of the CMRS model, and our predictive judgment about the future of the ecosystem under our new legal framework, we conclude that the new framework will not have a negative impact on investment and innovation in the Internet marketplace as a whole. As is often the case when we confront questions about the long-term effects of our regulatory choices, the record in this proceeding presents conflicting viewpoints regarding the likely impact of our decisions on investment. We cannot be certain which viewpoint will prove more accurate, and no party can quantify with any reasonable degree of accuracy how either a Title I or a Title II approach may affect future investment.[1194] Moreover, regulation is just one of many factors affecting investment decisions.[1195] Although we appreciate carriers' concerns that our reclassification decision could create investment-chilling regulatory burdens and uncertainty, we believe that any effects are likely to be short term and will dissipate over time as the marketplace internalizes our Title II approach, as the record reflects and we discuss further, below. More significantly, to the extent that our decision might in some cases reduce providers' investment incentives, we believe any such effects are far outweighed by positive effects on innovation and investment in other areas of the ecosystem that our core broadband policies will promote.[1196] Industry representatives support this judgment, stating that combined reclassification and forbearance decisions will provide the regulatory predictability needed to spur continued investment and innovation not only in infrastructure but also in content and applications.[1197]

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[1191] *Id.* at 1447-48, para. 80.

[1192] 47 C.F.R. § 20.9(a)(14)(ii)(B).

[1193] *See supra* Sections IV.B., IV.C.2.

[1194] *See infra* paras. 415-416.

[1195] *See, e.g.*, Free Press Nov. 21, 2014 *Ex Parte* Letter at 5.

[1196] *See, e.g.*, Letter from Angie Kronenberg, COMPTEL, to Marlene H. Dortch, Secretary, FCC, GN Docket 14-28, at 2 (filed Jan. 13, 2015) (COMPTEL Jan. 13, 2015 *Ex Parte* Letter).

[1197] *See, e.g.*, Sprint Jan. 16, 2015 *Ex Parte* Letter at 1 ("Sprint does not believe that a light touch application of Title II, including appropriate forbearance, would harm the continued investment in, and deployment of, mobile

(continued….)

411. *Investment Incentives.* The *2014 Open Internet NPRM* generated spirited debate about the consequences that classifying broadband Internet access service as a telecommunications service would have for investment incentives. Opponents of reclassification assert that Title II requirements will stifle innovation and investment.[1198] Other commenters vigorously support the opposite position, asserting that reliance on section 706 authority to support open Internet rules is a course fraught with prolonged uncertainty that will stifle investment and that has already had detrimental economic effects.[1199] These and other commenters claim that a cautious regulatory approach based on Title II will provide much-needed predictability to investors and consumers alike, while ensuring that the Commission has the statutory authority necessary to protect the open Internet, promote competition, and protect consumers.[1200]

412. The key drivers of investment are demand and competition. Internet traffic is expected to grow substantially in the coming years,[1201] and the profits associated with satisfying that growth provide a strong incentive for broadband providers to continue to invest in their networks.[1202] In addition, continuing advances in technology are lowering the cost of providing Internet access service.[1203] The possibility of enhancing profit margins can be expected to induce broadband providers to make the appropriate network investments needed to capture a reduction in costs made possible only through technological advances.

413. Competition not only creates the correct incentives for investment and promotes innovation in the broadband infrastructure needed to support robust and ubiquitous Internet access service, but also spurs innovation and investment at the "edge" of the network, where content and applications are created and deployed.[1204] As one commenter explains, "Title II promotes competitive

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broadband services."); Letter from Andrew W. Guhr, Counsel for AOL, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Dec. 5, 2014); COMPTEL Comments at 21-24; Vonage Reply at 32.

[1198] *See, e.g.*, Charter Comments at 13, 15-16; Comcast Comments at 46-50; Verizon Comments at 57; NCTA Dec. 23, 2014 *Ex Parte* Letter at 3-5; ACA Comments at 60-66; Alcatel-Lucent Comments at 2; AT&T Comments at 51-53; CenturyLink Comments at 5-6; Cisco Comments at 27; CTIA Comments at 46-48; Cox Comments at 34-36; Frontier Comments at 2-4; Qualcomm Comments at 4-7; Letter from Laurence Brett Glass, d/b/a LARIAT to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Jan. 9, 2015).

[1199] *See, e.g.*, Vonage Comments at 35- 36; AARP Comments at 38-42.

[1200] *See, e.g.*, Common Cause Comments at 13-16; WGAW Comments at 28-31; Public Knowledge Reply at 16-22; OTI Reply at 3-11; EFF Comments at 13-15; NASUCA Comments at 4-6; CDT Comments at 15-16; Cogent Comments at 11.

[1201] *See, e.g.*, Cisco Comments at 4-5 (stating that "[g]lobal IP traffic has increased more than fivefold in the past 5 years and will increase threefold over the next 5 years" and that it "expects traffic to grow from 16,607 petabytes of data in 2013 to 40,545 petabytes of data in 2018"); *see also* AARP Comments at 47-48 & fig. 2 (explaining that "[b]roadband providers have faced nearly exponential year-over-year growth in traffic flows for the entire history of the broadband market," and that trend is expected to continue).

[1202] *See, e.g.*, AARP Comments at 48 (arguing that "[b]ecause of the ongoing growth in traffic, broadband providers have had to continuously upgrade their network's capacity," and "broadband providers benefit from the growth in traffic volume associated with video services as it drives end-user demand for higher-priced, higher-speed offerings"); Access Comments at 13 ("The demand for faster and better access to the internet will grow, generating more value for and a stronger incentive to invest in enhanced network capacity.").

[1203] *See* Free Press Comments at 94-95 n.200 (describing declining costs for cable, LEC, and wireless broadband service providers due to technological and market developments); ACI Reply, Attach., Innovation and National Broadband Policies at 16-32 (discussing technological advancements in cable, wireline, and wireless networks and describing their benefits, including improved capacity and "declining costs and rates").

[1204] *See Verizon*, 740 F.3d at 644-45; COMPTEL Jan. 13, 2015 *Ex Parte* Letter at 2.

entry in at least two ways."[1205] First, section 224 (from which we do not forbear in the context of broadband Internet access service, as discussed below) "ensures that telecommunications carriers receive access to the poles of local exchange carriers and other utilities at just, reasonable, and nondiscriminatory rates,"[1206] an "important investment benefit that will enable those deploying fiber-to-the-home or other competitive networks to deploy more expeditiously and efficiently."[1207] Title II also "offers other benefits at the state level, including access to public rights of way," which some broadband providers reportedly utilize to deploy networks.[1208]

414. Further, contrary to the assertions of opponents of reclassification, sensible regulation and robust investment are not mutually exclusive.[1209] The investment record of incumbent LECs since passage of the 1996 Act calls into question claims that regulation necessarily stifles investment. Indeed, it appears that AT&T, Verizon, and Qwest (now CenturyLink) increased their capital investments as a percentage of revenues immediately after the Commission expanded Title II requirements pursuant to the Telecommunications Act of 1996,[1210] while investment levels decreased after 2001,[1211] during a period

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[1205] Letter from Marvin Ammori to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3 (filed Dec. 19, 2014) (Ammori Dec. 19, 2014 *Ex Parte* Letter).

[1206] *Id.* at 3; *see also* 47 U.S.C. § 224.

[1207] Ammori Dec. 19, 2014 *Ex Parte* Letter at 3-4; *see also* Letter from Austin C. Schlick, Director, Communications Law, Google, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (explaining that reclassifying broadband Internet access service as a telecommunications service would extend the statutory right of access to utility infrastructure to all providers of these services, "regardless of what services they otherwise provide"). Conversely, ACA asserts that reclassification would result in increased pole attachment rates for many of its members, which would have the effect of lowering investment incentives both for continued investment in existing facilities and for new deployments. *See* ACA Comments at 62, 64, 66. We do not agree with ACA's prediction concerning investment incentives. As we explain further below, we are committed to avoiding an outcome in which entities misinterpret today's decision as an excuse to increase pole attachment rates of cable operators providing broadband Internet access service. It is not the Commission's intent to see any increase in the rates for pole attachments paid by cable operators that also provide broadband Internet access service, and we caution utilities against relying on this decision to that end. *See infra* paras. 482-484. This Order does not itself require any party to increase the pole attachment rates it charges attachers providing broadband Internet access service, and we would consider such outcomes unacceptable as a policy matter. We will be monitoring marketplace developments following this Order and will promptly take further action in that regard if warranted. In any case, such arguments do not persuade us not to reclassify broadband Internet access service, since in reclassifying that service we simply acknowledge the reality of how it is being offered today.

[1208] *See* Ammori Dec. 19, 2014 *Ex Parte* Letter at 4 (citing Jon Brodkin, "Report: Verizon FiOS claimed public utility status to get government perks," Ars Technica, May 28, 2014, http://arstechnica.com/tech-policy/2014/05/report-verizon-fios-gets-perks-from-government-while-avoiding-regulations/; Bruce Kushnick, Public Utility Law Project of New York, Inc., It's All Interconnected: Oversight and Action is Required to Protect Verizon New York Telephone Customers and Expand Broadband Services (May 13, 2014), http://newnetworks.com/wp-content/uploads/PublicNN3.pdf.

[1209] *See* Sprint Jan. 16, 2015 *Ex Parte* Letter at 1 ("Sprint does not believe that a light touch application of Title II, including appropriate forbearance, would harm the continued investment in, and deployment of, mobile broadband services.").

[1210] *See, e.g.*, Free Press Comments at 102 (arguing that "the average annual investment by telecom carriers was *55 percent higher* under the period of Title II's application than it has been in the years since the FCC removed broadband from Title II"). The 1996 Telecom Act imposed a set of new obligations on incumbent local exchange carriers, including, most importantly, the duty to provide competing carriers access to unbundled network elements at cost-based rates. *See* 47 U.S.C. §§ 251(c)(3), 252(d)(1). The Commission adopted rules implementing the unbundling requirements in 1996. *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*,

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when the Commission relieved providers of many unbundling requirements and other regulatory obligations.[1212] And, of course, wireline DSL was regulated as a common-carrier service until 2005—a period in the late '90s and the first five years of this century, which saw the highest levels of wireline broadband infrastructure investment to date.[1213] At a minimum, this evidence demonstrates that robust investment can and does occur even when new regulations are adopted.[1214] Our conclusions are not premised on the assumption that regulation never harms investment, nor do we deny that deregulation often promotes investment; rather, we reject assertions that reclassification will substantially diminish overall broadband investment. This is further supported by examining broadband providers' investment histories since the announcement of the *Broadband Classification NOI* in 2010. While the Commission did not utilize reclassification to support its *2010 Open Internet Order*, it did not close the docket on the *Broadband Classification NOI*, indicating that reclassification remained an open question. The record demonstrates that broadband providers continued to invest, at ever increasing levels, in their networks post-2010, after which broadband providers were clearly on notice that the Commission was considering reclassifying broadband Internet access service as a telecommunications service and imposing certain Title II regulations upon them.[1215]

CC Docket Nos. 96-98, 95-185, First Report and Order, 11 FCC Rcd 15499 (1996). *But see Access Charge Reform*, CC Docket No. 96-262, Fifth Report and Order, 14 FCC Rcd 14221 (1999) (*Pricing Flexibility Order*), *aff'd, WorldCom v. FCC*, 238 F.3d 449 (D.C. Cir. 2001) (granting carriers pricing flexibility).

[1211] *See, e.g.*, USTelecom, *Historical Broadband Provider Capex*, http://www.ustelecom.org/broadband-industry-stats/investment/historical-broadband-provider-capex (last visited Jan. 21, 2015) (showing a drop in capex expenditures by broadband providers from a high of $118 billion in 2000 to a low of $57 billion in 2003).

[1212] *See Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services et al.*, WC Docket No. 06-125, Memorandum Opinion and Order, 22 FCC Rcd 18705 (2007), *aff'd sub nom. Ad Hoc v. FCC*, 572 F.3d 903 (*AT&T Forbearance Order*) (granting AT&T forbearance from rules applicable to enterprise broadband services); *Verizon Telephone Companies' Petition for Forbearance from Title II and Computer Inquiry Rules with Respect to their Broadband Services Is Granted by Operation of Law*, WC Docket No. 04-440, News Release (rel. Mar. 20, 2006) (informing the public of deemed grant of Verizon petition for forbearance with respect to enterprise broadband services); *Wireline Broadband Classification Order*, 20 FCC Rcd 14853 (eliminating *Computer Inquiry* requirements and other rules governing wireline broadband Internet access service); *Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, WC Docket No. 04-13, CC Docket No. 01-338, Order on Remand, 20 FCC Rcd 2533 (2005) (eliminating unbundled switching and significantly scaling back unbundling of other network elements); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers. Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, and 98-147, Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 16978 (2003) (subsequent history omitted) (eliminating line-sharing).

[1213] *See* US Telecom Research Brief, *Latest Data Show Broadband Investment Surged in 2013* at 2, Chart 2 (wireline broadband capital expenditures peaked at $79 billion in 2000), http://www.ustelecom.org/sites/default/files/documents/090814%20Latest%20Data%20Show%20Broadband%20Investment%20Surged%20in%202013.pdf.

[1214] *See* Vonage Comments at 13-15 (noting "substantial broadband network investments" by AT&T and Verizon following the release of the *Internet Policy Statement*).

[1215] *See, e.g.*, AT&T Comments at 19 ("[A]nnual investment in U.S. wireless networks grew more than 40 percent between 2009 and 2012, from $21 billion to $30 billion." (citing "Four Years of Broadband Growth," Office of Science and Technology Policy & The National Economic Council (June 2013), http://www.whitehouse.gov/sites/default/files/broadband_report_final.pdf) (*Four Years of Broadband Growth*); Free State Comments at 7 n.17 ("The telecommunications and cable sector was responsible for $50.5 billion of investment, comprising more than one-third of total capital investments in the U.S. economy last year."); Verizon

(continued….)

415. A number of market analysts concur that dire predictions of disastrous effects on investment are overblown.[1216] Although some commenters claim that then-Chairman Genachowski's May 6, 2010 announcement that the Commission would consider adopting a Title II approach prompted analysts to downgrade the ratings of Internet access service providers and sent stock prices downward, the effect of this announcement on stock prices, if any, is by no means clear.[1217] Further, there was no appreciable movement in capital markets following substantial public discussion of the potential use of Title II in November.[1218] What is clear from this debate is that stock price fluctuations can be caused by many different factors and are susceptible to various interpretations.[1219] Accordingly, we find unpersuasive the arguments that Title II classification would have a negative impact on stock value.

416. Tellingly, major infrastructure providers have indicated that they will in fact continue to invest under the framework we adopt, despite suggesting otherwise in their filed comments in this proceeding.[1220] For example, Sprint asserts in a letter in this proceeding that "[s]o long as the FCC

Comments, Lerner Declaration at 20 (citing *Four Years of Broadband Growth* at 4-5: "[S]ince President Obama took office in early 2009, nearly $250 billion in private capital has been invested in U.S. wired and wireless broadband networks. In just the last two years, more high-speed fiber cables have been laid in the United States than in any similar period since 2000."); Free Press Comments at 102, 100 fig. 1 ("The data also show that the implementation of the FCC's 2010 *Open Internet Order* was followed by an increase in telco capital investment. From the end of 2011 to the end of 2013 capex by the companies tracked in Figure 1 increased 7 percent (if the cable MSOs are included, the increase is 5 percent). This is noteworthy because the same warnings about the harm Title II would cause to investment were made about the Open Internet rules – predictions that were flat out wrong.").

[1216] *See, e.g.*, Free Press Nov. 21, 2014 *Ex Parte* Letter at 7 n.14 (quoting J.P. Morgan, North American Equity Research, Nov. 11, 2014, Net Neutrality: Prepared for Title II but We Take Less Negative View, "[w]e wouldn't change any of the fundamental assumptions on cable companies under our coverage under Title II, and shares are likely to rebound over time."), *id*. at 7 (quoting Bernstein Research Note, Nov. 17, 2014: "We note that during the three years in which the 2010 rules were in place while Verizon pursued its (unnecessary) litigation there did not appear to be any effect on investment decisions from the resulting litigation uncertainty. Further, the evidence carriers produce to support their argument that Title II classification will reduce investment tends to consist of commentary from analysts and network-equipment suppliers, as well as the results of their own discretionary choices. . . .").

[1217] Free Press explains that following the announcement of the 2010 *Broadband Classification NOI*, "[m]ost of the ISP stocks barely moved from this announcement. Verizon and AT&T each fell 2 percent. Cable stocks did drop more (on substantially higher volume), but this was primarily due to . . . over-valuation of these stocks following better-than-expected Q1 earnings reports. This was compounded by the broader market concerns stemming from the EU debt crisis." Free Press Comments at 114. In the months following the announcement the "ILECs, Cable and Wireless companies were outperforming the broader market, and vastly outperforming the edge companies' stocks. Comcast was the only ISP in negative territory, yet still outperformed the broader market. And its issues were more related to the merger than the [NOI]." *Id.* at 117-118.

[1218] *See* New York Stock Exchange, https://www.nyse.com/index (last visited Jan. 23, 2015) (detailing stock price information from October 1, 2014 to January 23, 2015 for Verizon (NYSE:VZ), AT&T (NYSE:T), Time Warner Cable (NYSE:TWC), CenturyLink (NYSE:CTL), Sprint (NYSE:S), T-Mobile (NSYE:TMUS), and Cablevision (NYSE:CVC); NASDAQ, http://www.nasdaq.com/ (last visited Jan. 23, 2015) (detailing stock price information from October 1, 2014 to January 23, 2015 for Comcast (NASDAQ:CMCSA) and Charter (NASDAQ:CHTR).

[1219] At any moment in time, the price of a stock reflects the market's valuation of the cash-flow-generating capability of the firm. Because a firm's cash flow is based on a multitude of factors, it is improper to infer that observed stock price changes reflect the market's belief that infrastructure investment will decline.

[1220] *See, e.g.*, Letter from COMPTEL, Engine, CCIA, and Internet Freedom Business Alliance to Chairman Wheeler, GN Docket No. 14-28, at 2 n.4 (filed Dec. 30, 2014) (COMPTEL Dec. 30, 2014 *Ex Parte* Letter); Brian Fung, *Verizon: Actually, strong net neutrality rules won't affect our network investment*, Washington Post, Dec. 10, 2014, *available at* http://www.washingtonpost.com/blogs/the-switch/wp/2014/12/10/verizon-actuallystrong-net-neutrality-

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continues to allow wireless carriers to manage our networks and differentiate our products, Sprint will continue to invest in data networks regardless of whether they are regulated by Title II, Section 706, or some other light touch regulatory regime."[1221] It adds that "Sprint does not believe that a light touch application of Title II, including appropriate forbearance, would harm the continued investment in, and deployment of, mobile broadband services."[1222] Verizon's chief financial officer, Francis Shammo, told investors in a conference call in response to a question about the effect of "this move to Title II," that "I mean to be real clear, I mean this does not influence the way we invest. I mean we're going to continue to invest in our networks and our platforms, both in Wireless and Wireline FiOS and where we need to. So nothing will influence that. I mean if you think about it, look, I mean we were born out of a highly regulated company, so we know how this operates."[1223]

417. Today's Order addressing forbearance from Title II and accompanying rules for BIAS will resolve concerns about uncertainty regarding the application of Title II to these services, which some argue could chill investment.[1224] By grounding our regulatory authority on firm statutory footing and defining the scope of our intended regulation, our decision establishes the regulatory predictability needed by all sectors of the Internet industry to facilitate prudent business planning, without imposing undue burdens that might interfere with entrepreneurial opportunities.[1225] Moreover, the forbearance we grant

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rules-wont-affect-our-network-investment/?wpisrc=nlswbd& wpmm=1 ; Brian Fung, *Comcast, Charter and Time Warner Cable all say Obama's net neutrality plan shouldn't worry investors*, Washington Post, Dec. 16, 2014, *available at* http://www.washingtonpost.com/blogs/the-switch/wp/2014/12/16/comcast-charter-andtime-warner-cable-all-tell-investors-strict-net-neutrality-wouldnt-change-much /. *See also* COMPTEL Dec. 11, 2014 *Ex Parte* Letter (urging the Commission "to consider [a Verizon disclosure regarding the impact of regulation on its investment plans] and discount the claims [in the record] that network investment will decline if the Commission reclassifies broadband Internet access services"); *see also* Free Press Comments at 92-93, 97 nn.198 & 205; Alan Breznick, *CenturyLink Eyes More Gig Launches*, LightReading, Feb. 12, 2015, at http://www.lightreading.com/gigabit/gigabit-cities/centurylink-eyes-more-gig-launches/d/d-id/713723 (last visited Feb. 17, 2015).

[1221] Sprint Jan. 16, 2015 *Ex Parte* Letter at 1-2; *see also* Thomas Gryta, *T-Mobile Joins Sprint In Downplaying FCC's Broadband Reclassification*, Wall Street Journal (Feb. 19, 2015), http://blogs.wsj.com/corporate-intelligence/2015/02/19/t-mobile-joins-sprint-in-downplaying-fccs-broadband-reclassification/ (T-Mobile US stating that "the regulatory reclassification of the Internet as a utility would not be an impediment to its business").

[1222] *Id*. at 1.

[1223] Brian Fung, *Verizon: Actually, strong net neutrality rules won't affect our network investment*, Washington Post, Dec. 10, 2014, *available at* http://www.washingtonpost.com/blogs/the-switch/wp/2014/12/10/verizon-actuallystrong-net-neutrality-rules-wont-affect-our-network-investment/?wpisrc=nlswbd& wpmm=1; *see also* Free Press Nov. 14, 2014 *Ex Parte* Letter at 6 (stating that "when asked if the President's push for Title II reclassification would affect your investment in broadband," Mr. Shammo answered "No"); Thomson Reuters Streetevents, Edited Transcript, VZ – Verizon Communications Inc at UBS Global Media and Communications Conference, at 13 (Dec. 9, 2014), available at http://publicpolicy.verizon.com/assets/images/content/VZ_at_UBS_Conf.pdf. Over one month later, Mr. Shammo stated, in an investor call on Jan. 22, 2015, that his earlier comments had been "misquoted" and asserted that reclassifying broadband as a Title II service will affect "long-term investment in our networks." *See* Brian Fung, *Did Congress, the media and the FCC all misunderstand what Verizon said on net neutrality? Verizon thinks so*, Washington Post, Jan. 23, 2014, *available at* http://www.washingtonpost.com/blogs/the-switch/wp/2015/01/23/did-congress-the-media-and-the-fcc-all-misunderstand-what-verizon-said-on-net-neutrality-verizon-thinks-so/.

[1224] *See infra* Section V.

[1225] *But see* NASUCA Comments at 12 (noting that "litigation is inevitable no matter which direction the Commission chooses" and arguing that "[t]he Commission is far more likely to avoid reversal by the courts if it adopts an open Internet regime based on reclassifying broadband as Title II"); CCIA Nov. 19, 2014 *Ex Parte* Letter

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we today is broad in scope and extends to obligations that might be viewed as characteristic of "utility-style" regulation. In particular, we forbear from imposing last-mile unbundling requirements, a regulatory obligation that several commenters argue has led to depressed investment in the European broadband marketplace.[1226] As such, we disagree with commenters who assert that classification of BIAS as a telecommunications service would chill investment due to fears that future Commissions will reverse our forbearance decision,[1227] and that forbearance will engender protracted litigation.[1228]

418. Some opponents argue that classifying broadband Internet access services as telecommunications services will necessarily lead to regulation of Internet backbone services, CDNs, and edge services, compounding the suppressive effects on investment and innovation throughout the ecosystem.[1229] Our findings today regarding the changed broadband market and services offered are specific to the manner in which *these particular* broadband Internet access services are offered, marketed, and function.[1230] We do not make findings with regard to the other services, offerings, and entities over which commenters raise concern, and in fact explicitly exclude such services from our definition of broadband Internet access services.[1231]

419. CALinnovates submitted a commissioned White Paper by NERA Economic Consulting, asserting that reclassification will have a strong negative effect on innovation (with associated harms to investment and employment).[1232] The White Paper asserts that small edge providers will be harmed by

("The group also discussed the inevitable litigation that will ensue no matter what open Internet rules the Commission adopts.").

[1226] *See* Letter from Christopher Yoo to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed June 10, 2014); Comcast Dec. 24, 2014 *Ex Parte* Letter at 5-7 (citing Martin H. Thelle & Dr. Bruno Basalisco, Copenhagen Economics, *Europe Can Catch Up with the US: A Contrast of Two Contrary Broadband Models* (June 2013), http://www.copenhageneconomics.com/Website/News.aspx?PID=3058&M=NewsV2&Action=1&NewsId=708; *see also* Letter from Maggie McCready, Vice President, Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Jan. 26, 2015).

[1227] *See, e.g.*, Ericsson Comments at 12 ("[T]he potential for reversals of forbearance decisions based on shifts in political winds and accompanying Commission leadership changes would deter investment in the short *and* long term."); AT&T Comments at 67-68.

[1228] *See, e.g.*, Verizon Comments at 68; AT&T Comments at 67-68 (arguing that broadband service providers "would be kept in a constant state of regulatory uncertainty" because forbearance decisions "are not irreversible"); Ericsson Comments at 12 ("[T]he potential for reversals of forbearance decisions based on shifts in political winds and accompanying Commission leadership changes would deter investment in the short *and* long term."); Alcatel-Lucent Comments at 13 ("It could take years for the Commission to sort through which Title II requirements should apply to broadband, and the inevitable legal appeals would only prolong a state of regulatory instability."); ARRIS Comments at 11-12; CTIA Oct. 17, 2014 *Ex Parte* Letter at 5. Other commenters also wrongly suggest that we plan to apply "old world" common carrier rules to Internet access service, conjuring the specter of pervasive and intrusive cost-of-service rate regulation. *See, e.g.*, Consumer Electronics Association Comments at 13; Yoo Dec. 22, 2014 *Ex Parte* Letter at 6; GSM Comments at 10-11.

[1229] *See, e.g.*, Ericsson Comments at 12; Alcatel-Lucent Comments at 2; AT&T Comments at 4-5; Verizon Comments at 55; NCTA Dec. 23, 2014 *Ex Parte* Letter at 7; CBIT Reply at 27; Cisco Comments at 27; Letter from John Mayo, Exec. Director, Georgetown Center for Business and Public Policy to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Jan. 16, 2015), Attach. Anna-Maria Kovacs, Regulatory Uncertainty: The FCC's Open Internet Docket, at 6-7 (Jan. 2015).

[1230] *See supra* Section IV.C.2.

[1231] *See supra* Section IV.C.1.

[1232] *See* CALinnovates Reply, Attach. NERA Economic Consulting, *Economic Repercussions of Applying Title II to Internet Services* at 2 (NERA White Paper).

reclassification, as Title II provisions "will serve to increase the capital costs for innovators both directly and indirectly as well as to foster the sort of regulatory uncertainty that deters investors from ever investing."[1233] We disagree. The White Paper assumes that broadband Internet access services will be subject to the full scope of Title II provisions, and ascribes increased costs to regulatory uncertainty. As discussed below,[1234] we forbear from application of many of Title II's provisions to broadband Internet access services, and in doing so, provide the regulatory certainty necessary to continued investment and innovation. We also reject the argument, set forth by the Phoenix Center, that reclassification would require broadband providers "to create, and then tariff, a termination service for Internet content under Section 203 of the Communications Act."[1235]

420. US Telecom submitted a study finding that under Title II regulation, wireline broadband providers are likely to invest significantly less than they would absent Title II regulation over the next five years, putting at risk much of the large capital investments that will be needed to meet the expected increases in demand for data service.[1236] The study contains several substantial analytical flaws which call its conclusions into question. First, the study inaccurately assumes that no wireless services are Title II services.[1237] In fact, wireless voice service is subject to Title II with forbearance, similar to the approach that we adopt here for BIAS. Second, the empirical models in the study incorrectly leave out factors that are important determinants of the dependent variables. For example, the level of the firm's demand for wireline services and its predicted rate of growth are left out as factors that clearly should be considered as determinants of wireline capital expenditures in Table 1.[1238] The statistical models in the paper are thus forced to either over- or under-estimate the role of the variables that are considered in the study, and as a result the predicted level of wireline investment subject to Title II regulation and its predicted rate of growth are not correct. We also agree with Free Press' argument that the study ignores the reality that once last-mile networks are built, the substantial initial investment has already been outlayed. For example, for the authors to observe that there was less investment in wireline networks than in wireless networks following the 2009 recession merely observes that wireline networks were largely constructed prior to 2009, while mobile wireless data networks were not.[1239] Further, as Free Press asserts, the study ignores evidence of massive network investments by incumbent LECs in the Ethernet market, which is regulated under Title II.[1240] The US Telecom study also did not factor in the potential effect of forbearance on investment decisions. We are thus unpersuaded that this study is determinative regarding the effect that reclassification will have on investment.

421. *CMRS, Enterprise Broadband, and Voluntary Title II*. Our conclusions are further borne

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[1233] NERA White Paper at 22.

[1234] *See infra* Section V.

[1235] *See* Digital Policy Institute Reply, Attach. at 4 (George S. Ford and Lawrence J. Spiwak, Phoenix Center Policy Bulletin No. 36, Tariffing Internet Termination: Pricing Implications of Classifying Broadband as a Title II Telecommunications Service (Sept. 2014) (Phoenix Center Policy Bulletin No. 36)) (emphasis omitted).

[1236] *See* Letter from Patrick S. Brogan, USTelecom to Marlene Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Nov. 19, 2014) (attaching Hassett, Kevin A and Shapiro, Robert J., The Impact of Title II Regulation of Internet Providers on Their Capital Investment (USTelecom Study)) (USTelecom Nov. 19, 2014 *Ex Parte* Letter).

[1237] Free Press Nov. 21, 2014 *Ex Parte* Letter at 1.

[1238] *See* USTelecom Study at 13, Tbl. 1.

[1239] Free Press Nov. 21, 2014 *Ex Parte* Letter at 2.

[1240] *Id.* at 2-3. Free Press asserts that Verizon "long ago stopped investing in residential fiber," even while its retail broadband service offerings have been classified as an information service, and AT&T "never bothered to deploy retail fiber-to-the-home services." Free Press Nov. 14, 2014 *Ex Parte* Letter at 4.

out in examining the market for those services that are already subject to Title II. The Commission's experience with CMRS, to which Title II explicitly applies, demonstrates that application of Title II is not inconsistent with robust investment in a service.[1241] The sizable investments made by CMRS providers, who operate under a market-based Title II regulatory regime, allow us to predict with ample confidence that our narrowly circumscribed application of Title II to broadband Internet access service will not cripple the regulated industries or deprive consumers of the benefits of continued investment and innovation in network infrastructure and Internet applications.

422. In 1993, Congress established a new regulatory framework for CMRS by giving the Commission the authority to forbear from applying any provision of Title II to CMRS except sections 201, 202, or 208.[1242] Congress prescribed the standard for forbearance in terms nearly identical to the standard it later adopted for common carriage services in the Telecommunications Act of 1996.[1243] In 1994, the Commission implemented its new authority by forbearing from applying sections 203, 204, 205, 211, 212, and portions of 214,[1244] thereby relieving providers of the burdens associated with the filing of tariffs, Commission investigation of new and existing rates, rate prescription and refund orders, regulations governing interlocking directorates, and regulatory control of market entry and exit.[1245] CMRS providers remain subject to the remaining provisions in Parts I and II of Title II. Recognizing that the "continued success of the mobile telecommunications industry is significantly linked to the ongoing flow of investment capital into the industry," the Commission sought to ensure that its policies fostered robust investment, and it chose a regulatory path intended to establish "a stable, predictable regulatory environment that facilitates prudent business planning."[1246]

423. Mobile providers have thrived under a market-based Title II regime. During the period between 1993 and the end of 2009, while mobile voice was the primary driver of mobile revenues, wireless subscribership grew over 1600 percent, with more than 285 million subscribers at the end of 2009.[1247] Industry revenues increased from $10.9 billion in 1993 to over $152 billion—a 1300 percent increase.[1248] Further, between 1993 and 2009, the industry invested more than $271 billion in building out

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[1241] *See, e.g.*, WGAW Reply at 34-35.

[1242] Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002(b), *codified at* 47 U.S.C. § 332(c). As discussed above, the Act defines CMRS as "any mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public." 47 U.S.C. § 332(d)(1). "Interconnected service" is "service that is interconnected with the public switched network." 47 U.S.C. § 332(d)(2). This statutory framework, set forth in section 332 of the Communications Act, also preempts State or local government regulation of CMRS rates and entry, but permits State or local regulation of other CMRS terms and conditions. 47 U.S.C. § 332(c)(3).

[1243] *Compare* 47 U.S.C. § 332(c)(1)(A), 332(c)(1)(D) *with* 47 U.S.C. § 160(a)–(b).

[1244] *Implementation of Sections 3(n) and 332 of the Communications Act; Regulatory Treatment of Mobile Services*, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411 (1994), *corrected*, 9 FCC Rcd 2156 (*Wireless Forbearance Order*), *order on reconsideration*, 10 FCC Rcd 7824 (1995) (clarifying preemption standard); *see also* 47 U.S.C. §§ 203, 204, 205, 211, 212, 214.

[1245] *Wireless Forbearance Order*, 9 FCC Rcd at 1510-11, para. 272.

[1246] *Id.* at 1421, para. 22.

[1247] CTIA Wireless Industry Indices: Annual Wireless Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry year-End 2013 Results, 2014 at 25.

[1248] *Id*. at 76.

their wireless networks, which was in addition to monies spent acquiring spectrum.[1249] Verizon Wireless, in particular, has invested tens of billions of dollars in deploying mobile wireless services since being subject to the 700 MHz C Block open access rules, which overlap in significant parts with the open Internet rules we adopt today.[1250] Similarly, during this period, the wireless industry built nearly 235,000 cell sites across the country—more than an 1800 percent increase over the approximately 13,000 sites at the end of 1993.[1251] Wireless voice service is now available to over 99.9 percent of the U.S. population.[1252] More than 99.4 percent of subscribers are served by at least two providers, and more than 96 percent are served by at least three providers.[1253] Finally, the recent AWS auction, conducted under the specter of Title II regulation, generated bids (net of bidding credits) of more than $41 billion—demonstrating that robust investment is not inconsistent with a light-touch Title II regime.[1254] Fears that our classification decision will lead to excessive regulation of Internet access service should be dispelled by our record of regulating the wireless voice industry for nearly twenty years under Title II.

424. In addition, the key provisions of Title II apply to certain enterprise broadband services. In a series of forbearance orders in 2007 and 2008, the Commission forbore from application of a number of Title II's provisions to AT&T, Qwest, Embarq, and Frontier.[1255] Since that time, those services have

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[1249] *Id.* at 97. We note that Verizon argues that wireless investment began increasing around 2003 due to growth in mobile broadband, and disputes the idea that this investment was driven by CMRS voice services. *See* Letter from William H. Johnson, Vice President and Associate General Counsel, Verizon, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-28, at 2-4 (filed Feb. 19, 2015); O'Rielly Dissent at 6 & n.17. However, given that mobile broadband was not classified as a Title I information service until 2007, it is not clear the extent to which increases in investment before then can be attributed to a non-CMRS regulatory environment. Furthermore, voice service has continued to account for a significant portion of revenues. *See* CTIA, Annual Wireless Industry Survey (2014) at 84; *see also* Bank of America/Merrill Lynch Global Wireless Matrix 4Q14 at 274 (reporting that data revenues represented only 40.7 percent of total service revenues reported in 2014 in the US). Free Press cites data showing substantial investment growth in the late 1990s (a time of increased demand for voice services) and the late 2000s to present (a period of increased smartphone use). *See* Letter from Derek Turner, Research Director, Free Press, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-28, at 2-4 (filed Feb. 23, 2015). During the latter years, as discussed above, Verizon's LTE network was subject to openness rules imposed by spectrum licensing conditions. Regardless of which assumptions are made, it is clear that there has been substantial network investment by mobile wireless providers during a significant period of time in which these providers' services have been subject to Title II regulation or openness requirements. Indeed, the data suggest that network investments have been driven more by overall market conditions, including consumer demand, than by the particular regulatory framework in place. *See id.* at 3.

[1250] *See* Verizon Communications Inc., 10K Financial Statements 2008-2014, http://www.verizon.com/about/investors/quarterly-reports/.

[1251] *Id.* at 107.

[1252] *Seventeenth Annual Wireless Competition Report*, 29 FCC Rcd at 15333, para. 47.

[1253] *Id.* at 15334, Chart III.A.1.

[1254] *See* FCC, *Auction 97 – Advanced Wireless Services (AWS-3)*, http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=97 (last visited Feb. 4, 2015).

[1255] *See AT&T Enterprise Forbearance Order*, 22 FCC Rcd 18705; *Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Title II and* Computer Inquiry *Rules with Respect to Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, 23 FCC Rcd 12260 (2008) (*Qwest Forbearance Order*); *Petition of the Embarq Local Operating Companies for Forbearance Under 47 U.S.C. § 160(c) from Application of* Computer Inquiry *& Certain Title II Common-Carriage Requirements; Petition of the Frontier and Citizens ILECs for Forbearance Under Section 47 U.S.C. § 160(c) from Title II and* Computer Inquiry *Rules with Respect to Their Broadband Services*, WC Docket No. 06-147, Memorandum Opinion and Order, 22 FCC Rcd 19478 (2007)

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been subject to sections 201, 202, and 208, as well as certain other provisions that the Commission determined were in the public interest. AT&T has recently called this framework an "unqualified regulatory success story," and claimed that these services "represent the epicenter of broadband investment that the Commission's national broadband policies seek to promote."[1256] The record does not evince any evidence that continued "light touch" Title II regulation has hindered investment in these services.

425. We observe that Title II currently applies not just to interconnected mobile voice and data services and to enterprise broadband services, but also the wired broadband offerings of more than 1000 rural local exchange carriers (LECs) that voluntarily offer their DSL and fiber broadband services as common carrier offerings "in order to participate in National Exchange Carrier Association (NECA) tariff pools, which allow small carriers to spread costs and risks amongst themselves," without harmful effects on investment.[1257] As NTCA, which represents many of these entities, explained, "[c]ontrary to the dire, and somewhat hyperbolic, predictions of a few, the application of Title II *only and strictly* to the transport and transmission component underpinning retail broadband service will not cause investment in broadband networks and the services that ride atop them to grind to a halt. To the contrary, a continued lack of clear 'rules of the road' is far more likely to have a deleterious effect on investment nationwide by providers large and small."[1258] Thus, we disagree with assertions by the American Cable Association that "Title II 'reclassification' or partial 'classification' of broadband Internet access service would have immediate and disastrous economic consequences for small and medium-sized ISPs."[1259]

D. Judicial Estoppel Does Not Apply Here

426. Finally, we reject the argument that we are judicially estopped from finding that broadband Internet access service is a telecommunications service. Judicial estoppel is an equitable doctrine that courts may invoke at their discretion to prevent a party that prevailed on an issue in one case

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(*Embarq/Frontier Forbearance Order*), *aff'd sub nom. Ad Hoc Telecom. Users Committee v. FCC*, 572 F.3d 903 (D.C. Cir. 2009).

[1256] *See* Marvin Ammori Dec. 19, 2014 *Ex Parte* Letter at 6 (citing AT&T Comments, WC Docket No. 05-25, RM-10593, at 3 (filed Apr. 16, 2013)); *see also* Free Press Reply at 29.

[1257] Free Press Comments at 46; *see also* Free Press Reply at 30; NTCA Comments at 9; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14900-903, paras. 89-95. *See Wireline Broadband Classification Order*, 20 FCC Rcd at 14901, para. 90 ("[P]roviders of wireline broadband Internet access service that offer [broadband Internet access] transmission as a telecommunications service after the effective date of this Order may do so on a permissive detariffing basis."); *id.* at 14901, n.270 ("For example, Qwest has indicated that it may continue offering a common carrier DSL transmission service to end users (*i.e.*, its current retail 'DSL+' transmission service) . . ."). As discussed above, see Section IV.C.1., the broadband Internet access service we define today is itself a transmission service. We disagree with the argument that in classifying BIAS, rather than a transmission "component" of BIAS, we are diverging from prior precedent regarding these DSL services and what the Justices were debating in *Brand X*. *See* Pai Dissent at 40-42. Whether we refer to that function as "access," "connectivity," or "transmission," we have defined BIAS today such that it is the capability to send and receive packets to all or substantially all Internet endpoints. *See supra* Section IV.C.1. Thus, the service we define and classify today *is* the same transmission service as that discussed in prior Commission orders.

[1258] NTCA Reply at 10.

[1259] ACA Comments at 44; *see also id*. at 62-66; Letter from Brian Gray, Connectivity Manager, Joink, LLC to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Feb. 2, 2015).

from taking a contrary position in another case.[1260] Several commenters contend that because the Commission successfully argued before the Supreme Court in *Brand X* that cable modem service is an information service, the Commission is judicially estopped from finding that broadband Internet access service is a telecommunications service.[1261]

427. We disagree. Although the Supreme Court has not adopted a blanket rule barring estoppel against the government, if it exists at all it is "hen's teeth rare."[1262] Judicial estoppel may be invoked against the government only when "it conducts what 'appears to be a knowing assault upon the integrity of the judicial system,'"[1263] such as when the inconsistent positions are tantamount to a knowing misrepresentation or even fraud upon the court.[1264] Judicial estoppel will not be applied when the shift in position "is the result of a change in public policy."[1265]

428. In *Brand X*, the Supreme Court confirmed not only that an administrative agency *can* change its interpretation of an ambiguous statute, but that it "'*must* consider varying interpretations and the wisdom of its policy on a continuing basis.'"[1266] Following that directive, we have reexamined the Commission's prior classification decisions and now conclude that broadband Internet access service is a telecommunications service. This Declaratory Ruling is the result of what we believe to be the better reading of the Communications Act under current factual and legal circumstances; it manifestly is not the product of fraud or other egregious misconduct.

429. Moreover, judicial estoppel does not apply unless a party's current position is "clearly inconsistent" with its position in an earlier legal proceeding.[1267] In the *Brand X* litigation and now, the Commission has consistently maintained the position that the relevant statutory provisions are susceptible to more than one reasonable interpretation. Counsel for the Commission argued in *Brand X* that the Commission reasonably construed ambiguous statutory language in finding that cable modem service is an information service.[1268] The Supreme Court agreed and deferred to the Commission's judgment, but recognized that a contrary interpretation also would be permissible: "[O]ur conclusion that it is *reasonable* to read the Communications Act to classify cable modem service solely as an 'information

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[1260] *See New Hampshire v. Maine*, 532 U.S. 742, 749-50 (2001); *Pegram v. Herdrich*, 530 U.S. 211, 227 n.8 (2000) (explaining that judicial estoppel "generally prevents a party from prevailing in one phase of a case on an argument and then relying on a contradictory argument to prevail in another phase").

[1261] *See, e.g.*, US Telecom Comments at 28-31; Alcatel-Lucent Comments at 12.

[1262] *Costa v. INS*, 233 F.3d 31, 38 (1st Cir. 2000); s*ee also OPM v. Richmond*, 496 U.S. 414, 422 (1990) (noting that the Supreme Court has reversed every finding of estoppel against the government that it has reviewed); *Heckler v. Community Health Services of Crawford County*, 467 U.S. 51, 60 (1984) ("[I]t is well settled that the Government may not be estopped on the same terms as any other litigant."); *Nagle v. Acton-Boxborough Regional School Dist.*, 576 F.3d 1, 3 (1st Cir. 2009).

[1263] *United States v. Owens*, 54 F.3d 271, 275 (6th Cir. 1995) (quoting *Reynolds v. Commissioner of Internal Revenue*, 861 F.2d 469, 474 (6th Cir. 1988)).

[1264] *Chao v. Roy's Construction, Inc.*, 517 F.3d 180, 186 n.5 (3d Cir. 2008); s*ee also United States v. Williams*, 612 F.3d 500, 513-14 (6th Cir. 2010); *Morris Communications, Inc. v. FCC*, 566 F.3d 184, 191 (D.C. Cir. 2009) (equitable estoppel may be applied only if the government "engaged in affirmative misconduct," such as "misrepresentation or concealment").

[1265] *United States v. Owens*, 54 F.3d at 275; s*ee also New Hampshire v. Maine*, 532 U.S. at 755.

[1266] *Brand X*, 545 U.S. at 981 (quoting *Chevron*, 467 U.S. at 863-64) (emphasis added); *see also Verizon*, 740 F.3d at 636.

[1267] *New Hampshire v. Maine*, 532 U.S. at 750 (quoting *United States v. Hook*, 195 F.3d 299, 306 (7th Cir. 1999).

[1268] *See* Brief for the Federal Petitioners at 26-28, 38-44, *Brand X*, 545 U.S. 967.

service' leaves untouched *Portland's* holding that the Commission's interpretation is not the *best* reading of the statute."[1269] Although we respect the Commission's prior classification decisions and the policy considerations underlying them, we believe the better view at this time is that broadband Internet access is a telecommunications service as defined in the Act. Because our decision does not result in "'the perversion of the judicial process,'"[1270] judicial estoppel should not be applied here.

E. State and Local Regulation of Broadband Services

430. We reject the argument that "potential state tax implications" counsel against the classification of broadband Internet access service as a telecommunications service.[1271] Our classification of broadband Internet access service as a telecommunications service appropriately derives from the factual characteristics of these services as they exist and are offered today. At any rate, we observe that the recently reauthorized Internet Tax Freedom Act (ITFA) prohibits states and localities from imposing "[t]axes on Internet access."[1272] This prohibition applies notwithstanding our regulatory classification of broadband Internet access service.[1273] Indeed, the legislative history of ITFA emphasizes that Congress drafted its definition of "Internet access" to be independent of the regulatory classification determination in order to "clarify that all transmission components of Internet access, regardless of the regulatory treatment of the underlying platform, are covered under the ITFA's Internet tax moratorium."[1274]

431. Today, we reaffirm the Commission's longstanding conclusion that broadband Internet access service is jurisdictionally interstate for regulatory purposes.[1275] As a general matter, mixed-

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[1269] *Brand X*, 545 U.S. at 985-86 (emphasis in original).

[1270] *New Hampshire v. Maine*, 532 U.S. at 750 (quoting *In re Cassidy*, 892 F.2d 627, 641 (7th Cir. 1990)).

[1271] *See* Letter from James Assey, Executive Vice President, NCTA, to Jonathan Sallet, General Counsel, FCC, GN Docket Nos. 14-28 & 10-127, at 1 (filed Dec. 2, 2014) (NCTA Dec. 2, 2014 *Ex Parte* Letter); *see also* Letter from Will Marshall, President, Progressive Policy Institute to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Dec. 16, 2014) (PPI Dec. 16, 2014 *Ex Parte* Letter); MMTC Comments at 9; ACA Comments at 62-64; Letter from James Assey, Exec. Vice President, NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 & 10-127 (filed Nov. 14, 2014) (NCTA Nov. 14, 2014 *Ex Parte* Letter); Letter from James Assey, Exec. Vice President, NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 & 10-127, at 2 (filed Oct. 30, 2014) (NCTA Oct. 30, 2014 *Ex Parte* Letter); TWC Comments at 19.

[1272] Internet Tax Freedom Act § 1101(a)(1), Pub. L. 105–277, 112 Stat. 2681–719 (1998) (codified at 47 U.S.C. § 151 nt.). In December 2014, Congress extended ITFA through September 2015 as part of a continuing resolution and omnibus spending package. *See* Consolidated and Further Continuing Appropriations Act, 2015, Pub. L. No. 113-235, § 624, 128 Stat. 2130, 2377 (2014). *See also* Letter from Matthew F. Wood, Policy Director, Free Press, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28 & 10-127, at 4-5 (filed Dec. 15, 2014) (Free Press Dec. 15, 2014 *Ex Parte* Letter).

[1273] *See id*. § 1105 of the ITFA defines "Internet access" to include "the purchase, use or sale of telecommunications . . . to the extent such telecommunications are purchased, used or sold . . . to provide [a service that enables users to connect to the Internet to access content, information, or other services offered over the Internet]." 47 U.S.C. § 151 nt.

[1274] S. Comm. On Commerce, Sci. & Transp., Internet Tax Nondiscrimination Act of 2003, S. Rep. No. 108-155, at 2 (Sept. 29, 2003), *reprinted in* 2004 U.S.C.C.A.N. 2435, 2437. Moreover, today's decision would not bring broadband providers within the ambit of any state or local laws that impose property taxes on "telephone companies" or "utilities," as those terms are commonly understood. *See, e.g.*, Letter from Samuel L. Feder, counsel to Charter Communications, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Feb. 18, 2015). As noted herein, we are not regulating broadband Internet access service as a utility or telephone company.

[1275] *See, e.g.*, *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4832, para. 59 (using the end-to-end analysis to determine that cable modem Internet access service is jurisdictionally interstate); *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13288, para. 11; *Wireless Broadband Classification Order*, Memorandum Opinion and Order, 22

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jurisdiction services are typically subject to dual federal/state jurisdiction, except where it is impossible or impractical to separate the service's intrastate from interstate components and the state regulation of the intrastate component interferes with valid federal rules or policies.[1276] With respect to broadband Internet access services, the Commission has previously found that, "[a]lthough . . . broadband Internet access service traffic may include an intrastate component, . . . broadband Internet access service is properly considered jurisdictionally interstate for regulatory purposes."[1277] The Commission thus has evaluated possible state regulations of broadband Internet access service to guard against any conflict with federal law.[1278] Though we adopt some changes to the legal framework regulating broadband, the Commission has consistently applied this jurisdictional conclusion to broadband Internet access services, and we see no basis in the record to deviate from this established precedent.[1279] The "Internet's inherently global and open architecture" enables edge providers to serve content through a multitude of distributed origination points, making end-to-end jurisdictional analysis extremely difficult—if not impossible—when the services at issue involve the Internet.[1280]

432. We also make clear that the states are bound by our forbearance decisions today. Under section 10(e), "[a] State commission may not continue to apply or enforce any provision" from which the Commission has granted forbearance.[1281] With respect to universal service, we conclude that the imposition of state-level contributions on broadband providers that do not presently contribute would be inconsistent with our decision at the present time to forbear from mandatory federal USF contributions, and therefore we preempt any state from imposing any new state USF contributions on broadband—at least until the Commission rules on whether to provide for such contributions.[1282] We recognize that

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FCC Rcd at 5911, para. 28; *GTE Telephone Operating Cos. GTOC Tariff No. 1, GTOC Transmittal No. 1148*, 13 FCC Rcd 22466, 22474-83, paras. 16-32 (1998) (*GTE Order*), *recon*., 17 FCC Rcd 27409, 27411-12, para. 9 (1999). The record generally supports the continued application of this conclusion to broadband Internet access service. *See, e.g.*, Free Press Dec. 15, 2014 *Ex Parte* Letter at 5-6.

[1276] *Vonage Holdings Corp.*, WC Docket No. 03-211, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22419, para. 17 (2004) (citing *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 368 (1986); *Petition for Emergency Relief and Declaratory Ruling Filed by the BellSouth Corporation*, Memorandum Opinion and Order, 7 FCC Rcd 1619, 1622-23, paras. 18-19 (1992)). Notwithstanding the interstate nature of BIAS, states of course have a role with respect to broadband. As the Commission has stated "finding that this service is jurisdictionally interstate [] does not by itself preclude" all possible state requirements regarding that service. *National Association of Regulatory Utility Commissioners Petition for Clarification or Declaratory Ruling that No FCC Order or Rule Limits State Authority to Collect Broadband Data*, 25 FCC Rcd 5051, 5054-55, para. 9 (2010) (*NARUC Broadband Data Order*) ("Given the specific federal recognition of a State role in broadband data collection, we anticipate that such State efforts will not necessarily be incompatible with the federal efforts or inevitably stand as an obstacle to the implementation of valid federal "polic[i]es.").

[1277] *NARUC Broadband Data Order*, 25 FCC Rcd at 5054, para. 8 n.24 (citing *GTE Order*, 13 FCC Rcd at 22475, para. 16).

[1278] *See generally, e.g.*, *NARUC Broadband Data Order*, 25 FCC Rcd 5051.

[1279] *See, e.g.*, *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4832, para. 59; *Wireless Broadband Classification Order*, 22 FCC Rcd at 5911, para. 28; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13288, para. 11.

[1280] *See, e.g.*, *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4832, para. 59 (using the end-to-end analysis to determine that cable modem Internet access service is jurisdictionally interstate); *GTE Order*, 13 FCC Rcd 22466 (finding GTE's ADSL service to be properly tariffed as an interstate service).

[1281] 47 U.S.C. § 160(e).

[1282] 47 U.S.C. § 254(f). Preemptive delay of state and local regulations is appropriate when the Commission determines that such action best serves federal communications policies. *See, e.g.*, *New York State Comm'n on Cable Television v. FCC*, 669 F.2d 58, 66 (2d Cir. 1982) (affirming delay of state regulation to comport with

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section 254 expressly contemplates that states will take action to preserve and advance universal service, but as discussed below, our actions in this regard will benefit from further deliberation.[1283]

433. Finally, we announce our firm intention to exercise our preemption authority to preclude states from imposing obligations on broadband service that are inconsistent with the carefully tailored regulatory scheme we adopt in this Order.[1284] While we establish a comprehensive regulatory framework governing broadband Internet access services nationwide today, situations may nonetheless arise where federal and state actions regarding broadband conflict.[1285] The Commission has used preemption to protect federal interests when a state regulation conflicts with federal rules or policies, and we intend to exercise this authority to preempt any state regulations which conflict with this comprehensive regulatory scheme or other federal law.[1286] For example, should a state elect to restrict entry into the broadband market through certification requirements or regulate the rates of broadband Internet access service through tariffs or otherwise, we expect that we would preempt such state regulations as in conflict with our regulations. While we necessarily proceed on a case-by-case basis in light of the fact specific nature of particular preemption inquiries, we will act promptly, whenever necessary, to prevent state regulations that would conflict with the federal regulatory framework or otherwise frustrate federal broadband policies.

V. ORDER: FORBEARANCE FOR BROADBAND INTERNET ACCESS SERVICES

434. Having classified broadband Internet access service as a telecommunications service, we now consider whether the Commission should grant forbearance as to any of the resulting requirements of the Act or Commission rules. As proposed in the *2014 Open Internet NPRM*, we do not forbear from sections 201, 202, and 208, along with key enforcement authority under the Act, both as a basis of authority for adopting open Internet rules as well as for the additional protections those provisions directly provide. As discussed below, we also do not forbear from certain provisions in the context of broadband Internet access service to protect customer privacy, advance access for persons with disabilities, and foster network deployment. Because we believe that those protections and our open

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Commission policy) (citing *Brookland Cable TV, Inc. v. Kelly*, 573 F.2d 765 (2d Cir.) cert denied, 441 U.S. 904 (1978); *NARUC 1*, 525 F.2d at 646). We note that we are not aware of any current state assessment of broadband providers for state universal service funds, as we understand that those carriers that have chosen voluntarily to offer Internet transmission as a Title II service classify such revenues as 100 percent interstate.

[1283] *See infra* Section V.C.1.d.

[1284] *See infra* Section V.

[1285] We note also that we do not believe that the classification decision made herein would serve as justification for a state or local franchising authority to require a party with a franchise to operate a "cable system" (as defined in Section 602 of the Act) to obtain an additional or modified franchise in connection with the provision of broadband Internet access service, or to pay any new franchising fees in connection with the provision of such services. *See, e.g.*, Letter from Matthew A. Brill, Counsel for NCTA, to Marlene H. Dortch, Secretary, FCC at 3 (filed Feb. 4, 2015) ("[I]t would be inappropriate for franchising authorities to require additional franchises, fees, or concessions for the provision of broadband Internet access service by a provider that already has a franchise, either through service regulation or claimed regulation of broadband equipment that adds no appreciable burden to the rights of way.").

[1286] *See*, *e.g.*, *Computer & Commc'ns Indus. Ass'n v. FCC*, 693 F.2d 198, 214 (D.C. Cir. 1982) ("Courts have consistently held that when state regulation of intrastate equipment or facilities would interfere with achievement of a federal regulatory goal, the Commission's jurisdiction is paramount and conflicting state regulations must necessarily yield to the federal regulatory scheme."); *see also, e.g.*, *Minnesota Pub. Utilities Comm'n. v. FCC*, 483 F.3d 570, 580 (8th Cir. 2007) ("Competition and deregulation are valid federal interests the FCC may protect through preemption of state regulation."); *Pub. Util. Comm'n of Texas v. FCC*, 886 F.2d 1325, 1334 (D.C. Cir. 1989); *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 737 F.2d 1095, 1114 (D.C. Cir. 1984).

Internet rules collectively will strike the right balance at this time of minimizing the burdens on broadband providers while still adequately protecting the public, particularly given the objectives of section 706 of the 1996 Act, we otherwise grant substantial forbearance.

A. Forbearance Framework

435. Section 10 provides that the Commission "shall" forbear from applying any regulation or provision of the Communications Act to telecommunications carriers or telecommunications services if the Commission determines that:

(1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory;

(2) enforcement of such regulation or provision is not necessary for the protection of consumers; and

(3) forbearance from applying such provision or regulation is consistent with the public interest.[1287]

436. The Commission previously has considered whether a current need exists for a rule in evaluating whether a rule is "necessary" under the first two prongs of the three-part section 10 forbearance test.[1288] In particular, the current need analysis assists in interpreting the word "necessary" in sections 10(a)(1) and 10(a)(2). For those portions of our forbearance analysis that do require us to assess whether a rule is necessary, the D.C. Circuit concluded that "'it is reasonable to construe 'necessary' as referring to the existence of a strong connection between what the agency has done by way of regulation and what the agency permissibly sought to achieve with the disputed regulation.'"[1289] In contrast, section 10(a)(3) requires the Commission to consider whether forbearance is consistent with the public interest,

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[1287] 47 U.S.C. § 160(a). "In making the determination under subsection (a)(3) [that forbearance is in the public interest,] the Commission shall consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of telecommunications services. If the Commission determines that such forbearance will promote competition among providers of telecommunications services, that determination may be the basis for a Commission finding that forbearance is in the public interest." *Id*. § 160(b). In addition, "[a] State commission may not continue to apply or enforce any provision" from which the Commission has granted forbearance under section 10. 47 U.S.C. § 160(e). For the same reasons set forth herein with respect to the forbearance granted under our section 10(a) analysis, forbearance from those same provisions and regulations in the case of the mobile broadband Internet access services also is consistent with the virtually identical forbearance standards for CMRS set forth in section 332(c)(1)(A). 47 U.S.C. § 332(c)(1)(A).

[1288] *Petition of AT&T Inc. for Forbearance under 47 U.S.C. § 160 from Enforcement of Certain of the Commission's Cost Assignment Rules*, WC Docket Nos. 07-21, 05-342, Memorandum Opinion and Order, 23 FCC Rcd 7302, 7314, para. 20 (2008) (*AT&T Cost Assignment Forbearance Order*) (concluding that a rule is not "necessary" under section 10(a)(1) where there is not a current need, and citing *Cellular Telecomms. & Internet Ass'n v. FCC*, 330 F.3d 502, 512 (D.C. Cir. 2003), which was interpreting the term "necessary" in the context of section 10(a)(2)).

[1289] *AT&T Cost Assignment Forbearance Order*, 23 FCC Rcd at 7314, para. 20 (citing *Cellular Telecommunications & Internet Ass'n v. FCC*, 330 F.3d 502, 512 (2003) (evaluating the Commission's interpretation of section 10(a)(2) under *Chevron* step 2)).

an inquiry that also may include other considerations.[1290]

437. Also central to our analysis, section 706 of the 1996 Act "explicitly directs the FCC to 'utiliz[e]' forbearance to 'encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.'"[1291] In its most recent *Broadband Progress Report*, the Commission found "that broadband is not being deployed to all Americans in a reasonable and timely fashion."[1292] This, in turn, triggers a duty under section 706 for the Commission to "take immediate action to accelerate deployment."[1293] Within the statutory framework that Congress established, the Commission "possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband."[1294]

438. This proceeding is unlike typical forbearance proceedings in that, often, a petitioner files a petition seeking relief pursuant to section 10(c).[1295] In such proceedings, "the petitioner bears the burden of proof—that is, of providing convincing analysis and evidence to support its petition for forbearance."[1296] However, under section 10, the Commission also may forbear on its own motion.[1297] Because the Commission is forbearing on its own motion, it is not governed by its procedural rules insofar as they apply, by their terms, to section 10(c) petitions for forbearance.[1298] Further, the fact that the Commission may adopt a rule placing the burden on a party filing a section 10(c) petition for

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[1290] *See AT&T Cost Assignment Forbearance Order*, 23 FCC Rcd at 7321, para. 32 (forbearing "because there is no current, federal need for the [rules in question] in these circumstances, *and the section 10 criteria otherwise are met*") (emphasis added).

[1291] *EarthLink v. FCC*, 462 F.3d 1, 8-9 (D.C. Cir. 2006) (alteration in original).

[1292] *2015 Broadband Progress Report* at para. 4.

[1293] *Id.* at para. 12.

[1294] *Ad Hoc Telecommunications Users Committee v. FCC*, 572 F.3d 903, 906-07 (D.C. Cir. 2009).

[1295] 47 U.S.C. § 160(c).

[1296] *Petition to Establish Procedural Requirements to Govern Proceedings for Forbearance Under Section 10 of the Communications Act, as Amended*, WC Docket No. 07-267, Report and Order, 24 FCC Rcd 9543, 9554–55, para. 20 (2009) (*Forbearance Procedures Order*). This burden of proof "encompasses both the burden of production and the burden of persuasion." *Id*. at 9556, para. 21. Thus, in addition to stating a prima facie case in support of forbearance, "the petitioner's evidence and analysis must withstand the evidence and analysis propounded by those opposing the petition for forbearance." *Id*.

[1297] *See* 47 U.S.C. § 160(a).

[1298] 47 C.F.R. §§ 1.53-1.59. We thus also reject criticisms of possible forbearance based on arguments that the *2014 Open Internet NPRM* would not satisfy those rules. *See, e.g.*, Letter from Earl Comstock, et al. Counsel for Full Service Network and TruConnect, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 6-10, 14 (filed Feb. 3, 2015) (Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter). Indeed, while the Commission modeled its forbearance procedural rules on procedures from the notice and comment rulemaking context in certain ways, in other, significant ways it drew upon procedures used outside that context. *Compare, e.g.*, *Forbearance Procedures Order*, 24 FCC Rcd at 9558-59, paras. 19, 29 (filing format and notice requirements modeled on procedures used in the notice and comment rulemaking context) *with, e.g.*, *id*. at 9551, para. 13 & n.51 (requiring that forbearance petitions be complete as filed, drawing from requirements in the section 271, tariffing, and formal complaint contexts and distinguishing the Commission's approach in notice and comment rulemaking proceedings). Thus, the Commission's adoption of these rules neither expressly bound the Commission nor reflected its view of the general standards relevant to a notice and comment rulemaking.

forbearance in implementing an ambiguous statutory provision in section 10 of the Act,[1299] does not require the Commission to assume that burden where it forbears on its own motion, and we reject suggestions to the contrary.[1300] Because the Commission is not responding to a petition under section 10(c), we conduct our forbearance analysis under the general reasoned decision making requirements of the Administrative Procedure Act, without the burden of proof requirements that section 10(c) petitioners face. We conclude that the analysis below readily satisfies both the standards of section 10[1301] and the reasoned decision making requirements of the APA[1302] and thus reject claims that broad forbearance accompanying classification decisions necessarily would be arbitrary and capricious.[1303]

439. We reject arguments suggesting that persuasive evidence of competition is a necessary prerequisite to granting forbearance under section 10 even if the section 10 criteria otherwise are met.[1304] For example, the Commission has in the past granted forbearance from particular provisions of the Act or regulations where it found the application of other requirements (rather than marketplace competition) adequate to satisfy the section 10(a) criteria,[1305] and nothing in the language of section 10 precludes the

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[1299] *See, e.g.*, *Verizon v. FCC*, 770 F.3d 961, 967 (D.C. Cir. 2014); *Qwest v. FCC*, 689 F.3d 1214, 1226 (10th Cir. 2012).

[1300] *See, e.g.*, Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 8 n.23.

[1301] We conclude that the section 10 analytical framework described above comports with the statutory requirements, and is largely consistent with alternative formulations suggested by others. *See, e.g.*, Letter from Lawrence J. Spiwak, President, Phoenix Center for Advanced Legal and Economic Public Policy Studies, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. 3 at 134-37 (filed Feb. 18, 2015). To the extent that such comments could be read to suggest different analyses in any respects, we reject them as not required by section 10, as we interpret it above.

[1302] As discussed below, we also find that, in proceeding via notice and comment rulemaking here, the Commission provided adequate notice of forbearance. *See infra* Section V.D.

[1303] Letter from Sarah J. Morris, Senior Policy Counsel, Open Technology Institute, New America Foundation, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Oct. 22, 2014).

[1304] *See, e.g.*, AT&T Comments at 67; TechFreedom Comments at 37; Time Warner Cable Comments at 18; CBIT Reply at 41-43; Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 16 & n.61.

[1305] *See, e.g.*, *Petition of USTelecom for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, Memorandum Opinion and Order, 28 FCC Rcd 7627, 7675-76, paras. 107-08 (2013) (*USTelecom Forbearance Long Order*) (granting forbearance from certain cost assignment rules where conditions imposed on the forbearance and other still-applicable rules and requirements were adequate to meet the Commission's needs); *id*. at 7668, paras. 86-87 (granting forbearance from property record requirements where the Commission's needs could be met through compliance plans put in place as conditions of forbearance); *id* at 7672, para. 98 (forbearing from requirements that interexchange carriers keep certain information in hard copy conditioned on that information being available on the carrier's website); *id*. at 7675, para. 104-06 (granting forbearance from certain reporting requirements in light of other still-applicable regulatory requirements and conditions on forbearance); *id*. at 7678-79, paras. 113-15 (forbearing from other reporting requirements where the information at issue still would be filed or otherwise available in light of other still-applicable regulatory requirements and conditions on forbearance); *id*. at 7691-92, paras. 142-48 (forbearing from separate affiliate requirements given other still-applicable regulatory requirements and conditions on forbearance); *id*. at 7705, para. 175 (forbearing from rules governing recording of conversations with the telephone company in light of other, still-applicable legal requirements); *Review of Foreign Ownership Policies for Common Carrier and Aeronautical Radio Licensees*, IB Docket No. 11-133, First Report and Order, 27 FCC Rcd 9832, 9841, para. 20 (2012) (incorporating section 310(b)(4) requirements in order to satisfy section 10(a)(3) forbearance standard for section 310(b)(3) in certain cases); *Petition for Forbearance of Iowa Telecommunications Services, Inc. d/b/a/ Iowa Telecom Pursuant to 47 U.S.C. § 160(c) from the Deadline for Price Cap Carriers to Elect Interstate Access Rates Based on The CALLS Order or a Forward Looking Cost Study*, CC Docket No. 01-331, Order, 17 FCC Rcd 24319, 24325-26, paras. 18-19 (2002) (granting forbearance from an interstate switched access rate regulation

(continued….)

Commission from proceeding on that basis where warranted.[1306] Thus, although, in appropriate circumstances, persuasive evidence of competition can be a sufficient basis to grant forbearance, it is not inherently necessary to a grant of forbearance under section 10. The *Qwest Phoenix Order*, cited by some commenters in this regard, is not to the contrary. Unlike here, the Commission in the *Qwest Phoenix Order* was addressing a petition where the rationale for forbearance was premised on the state of competition.[1307] This proceeding does not involve a similar request for relief, and, indeed, the *Qwest Phoenix Order* itself specifically observed that "a different analysis may apply when the Commission addresses advanced services, like broadband services," where the Commission, among other things, "must take into consideration the direction of section 706."[1308] For similar reasons we reject as inconsistent with the text of section 10 and our associated precedent the argument that forbearance only is appropriate when the grant of forbearance will itself spur conduct that mitigates the need for the forborne-from requirements.[1309]

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to allow rates to be re-set at a forward-looking cost level in light of the protections of the forward-looking cost approach to setting the rate and other, still-applicable legal requirements); *Petition for Forbearance from Application of the Communications Act of 1934, as Amended, to Previously Authorized Services*, Memorandum Opinion and Order, 12 FCC Rcd 8408, 8411-12, paras. 9-10 (Common Car. Bur. 1997) (granting forbearance from section 203 for purposes of providing a refund in light of other, still-applicable legal requirements). *See also, e.g.*, *Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Servs*., GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411, 1479, para. 176 (granting forbearance under section 332(c)(1)(A) from section 205 in light of other, still-applicable enforcement provisions) (*CMRS Title II Forbearance Order*). We reiterate that although the Commission has discretion to grant forbearance where other protections that include conditions on forbearance are adequate, in the case of section 10(c) petitions for forbearance the Commission is "under no statutory obligation to evaluate [a] Petition other than as pled." *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, WC Docket No. 04-223, Memorandum Opinion and Order, 20 FCC Rcd 19415, 19445, para. 61 n.161 (2005).

[1306] Section 10(b) does direct the Commission to consider whether forbearance will promote competitive market conditions as part of the public interest analysis under section 10(a)(3). 47 U.S.C. § 160(b). However, while a finding that forbearance will promote competitive market conditions may provide sufficient grounds to find forbearance in the public interest under section 10(a)(3), *see id*., nothing in the text of section 10 makes such a finding a necessary prerequisite for forbearance where the Commission can make the required findings under section 10(a) for other reasons. *See generally* 47 U.S.C. § 160. For similar reasons we reject the suggestion that more geographically granular data or information or an otherwise more nuanced analysis are needed with respect to some or all of the forbearance granted in this Order. *See, e.g.*, Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 14-16. The record and our analysis supports forbearance from applying the statutory provisions and Commission regulations to the extent described below based on considerations that we find to be common nationwide, and as discussed in our analysis of the record below, we do not find persuasive evidence or arguments to the contrary in the record as to any narrower geographic area(s) or as to particular provisions or regulations. *See generally infra* Section V.C.

[1307] *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, WC Docket No. 09-135, Memorandum Opinion and Order, 25 FCC Rcd 8622, 8622, para. 1 (2010) (*Qwest Phoenix Order*). Insofar as the Commission likewise was responding to arguments that competition was sufficient to warrant forbearance when acting on other forbearance petitions, this distinguishes those decisions, as well. Likewise, to the extent that the Commission has found competition to be a sufficient basis to grant forbearance on its own motion in the past, that does not dictate that it only can grant forbearance under such circumstances. Rather, the Commission grants forbearance where it finds that the section 10(a) criteria are met.

[1308] *Id*. at 8644-45, para. 39.

[1309] *See, e.g.*, Hurwitz Comments at 11.

B. Maintaining the Customer Safeguards Critical to Protecting and Preserving the Open Internet

440. As discussed below, we find sections 201 and 202 of the Act, along with section 208 and certain fundamental Title II enforcement authority, necessary to ensure just and reasonable conduct by broadband providers and necessary to protect consumers under sections 10(a)(1) and (a)(2). We also find that forbearance from these provisions would not be in the public interest under section 10(a)(3), and therefore do not grant forbearance from those provisions and associated enforcement procedural rules with respect to the broadband Internet access service at issue here.

1. Authority to Protect Consumers and Promote Competition: Sections 201 and 202

441. The Commission has found that sections 201 and 202 "lie at the heart of consumer protection under the Act,"[1310] and we find here that forbearance from those provisions would not be in the public interest under section 10(a)(3). The Commission has never previously forborne from applying these "bedrock consumer protection obligations,"[1311] and we generally do not find forbearance warranted here. This conclusion is consistent with the views of many commenters that any service classified as a telecommunications service should remain subject to those provisions.[1312] However, particularly in light of the protections the open Internet rules provide and the ability to employ sections 201 and 202 in case-by-case adjudications, we are otherwise persuaded to forbear from applying sections 201 and 202 of the Act in a manner that would enable the adoption of *ex ante* rate regulation of broadband Internet access service in the future, as discussed below.[1313]

442. For one, sections 201 and 202 help enable us to preserve and protect Internet openness broadly, and applying those provisions benefits the public broadly by helping foster innovation and competition at the edge,[1314] thereby promoting broadband infrastructure investment nationwide.[1315] As explained above, the open Internet rules adopted in this Order reflect more specific protections against unjust or unreasonable rates or practices for or in connection with broadband Internet access service.[1316]

[1310] *Personal Communications Industry Association's Broadband Personal Communications Services Alliance's Petition for Forbearance for Broadband Personal Communications Services et al.*, WT Docket No. 98-100, GN Docket No. 94-33, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 16857, 16865, para. 15 (1998) (*PCIA Forbearance Order*).

[1311] *PCIA Forbearance Order*, 13 FCC Rcd at 16865, para. 15.

[1312] *See, e.g.*, AARP Comments at 42; CDT Comments at 15; COMPTEL Comments at 22-23; Consumers Union Comments at 11; Mozilla Comments at 13; Free Press Reply at 26-27; Sidecar Technologies Reply at 6; Letter from Michael Beckerman, President & CEO, The Internet Association, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 2 (filed Jan. 6, 2015) (Internet Association Jan. 6, 2015 *Ex Parte* Letter); Letter from William B. Wilhelm, Counsel for Vonage, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Jan. 7, 2015) (Vonage Jan. 7, 2015 *Ex Parte* Letter); NTCA Jan. 8, 2015 *Ex Parte* Letter at 2.

[1313] To be clear, this *ex ante* rate regulation forbearance does not extend to inmate calling services and therefore has no effect on our ability to address rates for inmate calling services under section 276. *See infra* para. 521.

[1314] Thus, in this respect, our decision to apply the provisions actually will promote competitive market conditions at the edge. *See* 47 U.S.C. § 160(b) (directing the Commission, in "making the determination under subsection (a)(3) of this section, [to] consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of telecommunications services").

[1315] *See supra* Section III.B.1.

[1316] *See supra* Section III.

These benefits—which can extend beyond the specific dealings between a given broadband provider and a given customer—persuade us that forbearance from sections 201 and 202 here is not in the public interest.

443. Retaining these provisions, moreover, is in the public interest because it provides the Commission direct statutory authority to protect Internet openness and promote fair competition while allowing the Commission to adopt a tailored approach and forbear from most other requirements. As discussed below, this includes forbearance from the pre-existing *ex ante* rate regulations and other Commission rules implementing sections 201 and 202.[1317] As another example, this authority supports our forbearance from other interconnection requirements in the Act.[1318] Such considerations provide additional grounds for our conclusion that section 10(a)(3) is not satisfied as to forbearance from sections 201 and 202 of the Act with respect to broadband Internet access service.

444. We also conclude that it would not be in the public interest to forbear from applying sections 201 and 202 given concerns that limited competition could, absent the backstop provided by that authority, result in harmful effects. Among other things, broadband providers are in a position to be gatekeepers to the end-user customers of their broadband Internet access service.[1319] In addition, although there is some amount of competition for broadband Internet access service, it is limited in key respects. While harmful practices by broadband providers—whether in general or as to particular customers—conceivably could motivate an end user to select a different provider of broadband Internet access service, the record does not provide convincing evidence of the nature or extent of such effects in particular.[1320] To the contrary, for example, data show that the majority of Americans face a choice of only two providers of fixed broadband for service at speeds of 3 Mbps/768 kbps to 10 Mbps/768 kbps, and no choice at all (zero or one service provider) for service at 25/3 Mbps.[1321] We also find significant costs associated with switching service that further limit the potential benefits of any competition that would otherwise exist.[1322] These collectively persuade us that we cannot simply conclude, as a general matter, that there is extensive competition sufficient to constrain providers' conduct here. Moreover, as the Commission found in the CMRS context, competition would "not necessarily protect all consumers from all unfair practices. The market may fail to deter providers from unreasonably denying service to, or discriminating against, customers whom they may view as less desirable."[1323] In addition, and again

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[1317] *See infra* Section V.C.3. We thus reject the arguments of some commenters against the application of these provisions insofar as they assume that such additional regulatory requirements also will apply in the first instance. *See, e.g.*, TIA Comments at 16 ("47 C.F.R. is filled with detailed mandates (e.g., Part 64) implementing Section 201 or other statutory provisions from which the Commission would either have to forbear – or not. Imposition of those most basic of all common carrier statutory obligations undoubtedly would lead to protracted debates over the application of specific rules and the lawfulness of existing broadband ISP service rates, terms, and business practices.").

[1318] *See infra* Section V.C.2.e.

[1319] *See supra* Section III.B.

[1320] Commenters citing generalized information about the extent of switching among broadband providers does not address the specific concerns that we identify here about consumers' likelihood and ability to switch broadband providers based on particular practices by those providers, nor on the likelihood that any such switching would deter the harmful conduct. *See, e.g.*, USTelecom Comments at 11-13; Verizon Reply at 45-46.

[1321] *2015 Broadband Progress Report*, Chart 2; *see also, e.g.*, CCIA Reply at 2.

[1322] *See supra* Section III.B.

[1323] *PCIA Forbearance Order*, 13 FCC Rcd at 16868, para. 23*; see also, e.g.*, *Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, 23 FCC Rcd 12260, 12291-92, para. 64 (2008) (*Qwest Enterprise Broadband Forbearance Order*); *Petition of the Embarq Local Operating Companies for Forbearance Under 47*

(continued….)

similar to the Commission's conclusion in the CMRS context,[1324] even in a competitive market certain conditions could create incentives and opportunities for service providers to engage in discriminatory and unfair practices.[1325] Furthermore, no matter how many options end users have in selecting a provider of Internet access service, or how readily they could switch providers, an edge provider only can reach a particular end user through his or her broadband provider.[1326] We thus reject suggestions that market forces will be sufficient to ensure that providers of broadband Internet access service do not act in a manner contrary to the public interest.[1327]

445. Against this backdrop we are unpersuaded by arguments seeking forbearance from sections 201 and 202 based on generalized arguments about marketplace developments, such as network investment or changes in performance or price per megabit, in the recent past.[1328] However, counterarguments in the record, longer-term trends, and our experience in the CMRS context where sections 201 and 202 have applied, leave us unpersuaded that the inapplicability of sections 201 and 202 were a prerequisite for any such marketplace developments.[1329] We are similarly unpersuaded by

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U.S.C. § 160(c) from Application of Computer Inquiry & Certain Title II Common-Carriage Requirements et al., WC Docket No. 06-147, Memorandum Opinion and Order, 22 FCC Rcd 19478, 19507-08, para. 59 (2007), *aff'd sub nom. Ad Hoc Telecom. Users Committee v. FCC*, 572 F.3d 903 (D.C. Cir. 2009); *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services et al.*, WC Docket No. 06-125, Memorandum Opinion and Order, 22 FCC Rcd 18705, 18737-38, para. 67 (2007) (*AT&T Enterprise Broadband Forbearance Order*), *aff'd sub nom. Ad Hoc v. FCC*, 572 F.3d 903; *Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, as amended (47 U.S.C. § 160(c)), for Forbearance from Certain Dominant Carrier Regulation of Its Interstate Access Services, and for Forbearance of Title II Regulation of Its Broadband Services, in the Anchorage, Alaska, Incumbent Local Exchange Carrier Study Area*, WC Docket No. 06-109, Memorandum Opinion and Order, 22 FCC Rcd 16304, 16360, para. 128 (2007); *Petition of SBC Communications, Inc. for Forbearance from the Application of Title II Common Carrier Regulation to IP Platform Services*, WC Docket No. 04-29, Memorandum Opinion and Order, 20 FCC Rcd 9361, 9367-68, para. 17 (2005) (*SBC IP Platform Services Forbearance Order*), *pet. for review granted on other grounds sub nom. AT&T Inc. v. FCC*, 452 F.3d 830 (D.C. Cir. 2006).

[1324] *PCIA Forbearance Order*, 13 FCC Rcd at 16868, para. 23.

[1325] For the same reasons discussed above, we are not persuaded to reach a different forbearance decision based on asserted levels of competition faced by small- or mid-sized broadband providers. *See, e.g.*, Letter from Barbara S. Esbin, Counsel for ACA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 10-11 (filed Jan. 12, 2015) (ACA Jan. 12, 2015 *Ex Parte* Letter).

[1326] *See, e.g.*, Ad Hoc Comments at 7 ("Competitive conditions vary, not only geographically but also structurally. Thus, a subscriber selecting its Internet access service provider may have competitive alternatives that make forbearance from regulation of that transaction necessary and beneficial. But businesses trying to communicate with that subscriber after the choice is made to have no competitive alternatives.").

[1327] *See, e.g.*, Americans for Tax Reform and Digital Liberty Comments at 5 ("Title II regulation of the competitive broadband industry would abruptly decelerate the speed of Internet innovation to the speed of government . . . ."); CEA Comments at 13 ("Reclassification would be an excessive 'solution' out of proportion to the perceived problem, especially given that any discriminatory behaviors very likely would be mitigated by a competitive market."); CenturyLink Comments at 48-49 ("[O]ne would expect to find the forces of competition protecting consumer interests, as providers work to capture and retain customers by responding to customer needs."); Ericsson Comments at 11 (arguing that the provision of Internet service is "a vibrant, competitive industry" and arguing further that applying "[s]ections 201 and 202 of the Act to broadband Internet access would stifle investment and innovation").

[1328] *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 10-11; Comcast Dec. 24, 2014 *Ex Parte* Letter at 4-6; NCTA Dec. 23, 2014 *Ex Parte* Letter at 19-20.

[1329] *See, e.g.*, *supra* Section IV.C.5.

arguments comparing the U.S. broadband marketplace with those in Europe,[1330] given, among other things, the differences between the regulatory approach there and the regulatory framework that results from this Order.[1331] We thus find those arguments for forbearance sufficiently speculative and subject to debate that they do not overcome our public interest analysis above.

446. For these same reasons, we are not persuaded that application of sections 201 and 202 is not necessary to ensure just, reasonable, and nondiscriminatory conduct by broadband providers and for the protection of consumers under sections 10(a)(1) and (a)(2). As discussed above, applying these provisions enables us to protect customers of broadband Internet access service from potentially harmful conduct by broadband providers both by providing a basis for our open Internet rules and for the important statutory backstop they provide regarding broadband provider practices more generally.

447. We also observe that our forbearance decision as to sections 201 and 202 for broadband Internet access service is informed by the CMRS experience, where Congress specifically recognized the importance of sections 201 and 202 (along with section 208) in excluding those provisions from possible forbearance under section 332(c)(1)(A).[1332] Application of sections 201 and 202 has not frustrated investment in the wireless marketplace, nor has it led to *ex ante* regulation of rates charged to consumers for wireless voice service. Indeed, we find that the successful application of this legal framework in the CMRS context responds to the concerns of some commenters about the potential burdens, or uncertainty, resulting from the application of sections 201 and 202, which they contend could create disincentives for investment even standing alone and apart from *ex ante* rules.[1333] Moreover, within their scope, our open Internet rules reflect our interpretation of how sections 201 and 202 apply, providing further guidance and addressing possible concerns about uncertainty regarding the application of sections 201 and 202.[1334] Beyond that, we are not persuaded that concerns about the burdens or uncertainty associated with sections 201 and 202 counsel in favor of a contrary public interest finding under section 10(a)(3), particularly

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[1330] *See, e.g.*, Comcast Dec. 24, 2014 *Ex Parte* Letter at 5-6; NCTA Dec. 24, 2014 *Ex Parte* Letter at 20.

[1331] *See, e.g.*, Charles Acquard, Executive Director, NASUCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. at 5 (filed Sept. 22, 2014) (noting the "distinction between the US and European regulatory treatment of broadband . . . that incumbent providers make access to elements of their broadband infrastructures available on an unbundled basis for use by rival providers"); *see also* Letter from Derek Turner, Research Director, Free Press to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127 at 4 (filed Feb. 19, 2015) (Free Press Feb. 19, 2015 *Ex Parte* Letter) ("For 2011–2012, total fixed and mobile capital intensity (capital expenditures as a percentage of revenues) was 12.2 percent in the E.U. countries reporting data, versus 14.1 percent in the U.S. Among the 23 E.U. countries with complete data, 13 reported higher capital intensities than the U.S. did during this two-year period.")(internal citation omitted).

[1332] 47 U.S.C. § 332(c)(1)(A) (specifying that although Title II applies to CMRS, the Commission may forbear from enforcing any provision of the title *other* than sections 201, 202, and 208).

[1333] *See, e.g.*, Alcatel-Lucent Comments at 15; ACA Comments at 63-64; AT&T Comments at 64–65; Ericsson Comments at 11; TIA Comments at 16; NCTA Reply at 15; Verizon Reply at 51-52; Comcast Dec. 23, 2014 *Ex Parte* Letter at 18-19; NCTA Dec. 24, 2014 *Ex Parte* Letter at 18; Letter from William H. Johnson, Vice President & Associate General Counsel, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 3-7 (filed Jan. 26, 2015) (Verizon Jan. 26, 2015 *Ex Parte* Letter); Letter from Barbara S. Esbin, Counsel for ACA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 5 (filed Feb. 2, 2015). While Verizon attempts to distinguish the CMRS experience by claiming that, unlike voice service, "broadband has *never* been subject to Title II," Verizon Jan. 26, 2015 *Ex Parte* Letter at 5, this is both factually incorrect for the reasons described above, *see supra* Sections IV.A, IV.C.5, nor does it meaningfully address the fact that the CMRS marketplace has seen substantial growth and investment under the regulatory framework that the Commission did apply.

[1334] *See supra* Section III.F.4.

given the very generalized concerns commenters raised.[1335]

448. Although some have argued that section 706 of the 1996 Act provides sufficient authority to adopt open Internet protections,[1336] and we do, in fact, conclude that section 706 provides additional support here, we nonetheless conclude that the application of sections 201 and 202 is appropriate to remove any ambiguity regarding our authority to enforce strong, clear open Internet rules.[1337] Further, comments focused exclusively on section 706 authority neglect the direct role that sections 201 and 202 will play in the overall regulatory framework we adopt, with respect to practices for or in connection with broadband Internet access service that are not directly governed by our rules.

449. We are persuaded, in part, by arguments that we should forbear from sections 201 and/or 202 outside the open Internet context,[1338] although we reject calls to entirely forbear from applying sections 201 and 202 outside that context or that we otherwise adopt a more granular decision regarding forbearance from provisions in sections 201 and/or 202.[1339] While open Internet considerations have led the Commission to revisit its prior decisions,[1340] our ultimate classification decision here simply acknowledges the reality of how these services are being offered today.[1341] Having classified BIAS as a telecommunications service, we exercise our forbearance authority to establish a tailored Title II regulatory framework that adequately protects consumers, ensures just and reasonable broadband provider conduct, and furthers the public interest—consistent with our goals of more, better, and open broadband. In addition, insofar as commenters cite the same arguments about past network investment or changes in

[1335] In any case, the three prongs of section 10(a) are conjunctive and the Commission could properly deny a petition for failure to meet any one prong. *Cellular Telecomms. & Internet Ass'n v. FCC*, 330 F.3d 502, 509 (D.C. Cir. 2003). Here, and as to the enforcement provisions below, we find none of the prongs satisfied.

[1336] *See, e.g.*, AT&T Comments at 3; Comcast Comments at 42-43; Georgetown Center for Business and Public Policy Comments at 4; NCTA Reply at 24-30; WISPA Reply at 27.

[1337] For example, although we find that we have authority under section 706 of the 1996 Act to implement appropriate enforcement mechanisms, our reliance on sections 201 and 202 as additional sources of authority (coupled with the enforcement provisions from which we do not forbear, as discussed below), eliminates possible arguments to the contrary. *See, e.g.*, Comstock Reply at 22 (noting that the Commission's forfeiture "regulations at 47 C.F.R. 1.80 (2013) list the violations of specific Acts to which forfeitures apply and section 706 of the Telecommunications Act is not one of them").

[1338] *See, e.g.*, Letter from Matthew A. Brill, Counsel for NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 4-6 (filed Jan. 14, 2015) (NCTA Jan. 14, 2015 *Ex Parte* Letter).

[1339] *See, e.g.*, NCTA Jan. 14, 2015 *Ex Parte* Letter at 5 (proposing that the Commission forbear from section 201(b) either in its entirety or outside the open Internet context); NCTA Dec. 24, 2014 *Ex Parte* Letter at 18-19 (citing a proposal from Congresswoman Eshoo to forbear from all of Title II other than section 202(a)); Letter from Kathryn A. Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1-2 (filed Feb. 11, 2015) (seeking forbearance from applying the prohibition on unjust and unreasonable "charges" under section 201(b)).

[1340] While the Commission can proceed incrementally, *see, e.g.*, *NCTA v. Brand X*, 545 U.S. 967, 1002 (2005), the agency also has a "continuing obligation to practice reasoned decisionmaking" that includes revisiting prior decisions to the extent warranted. *Aeronautical Radio v. FCC*, 928 F.2d 428 (D.C. Cir. 1991).

[1341] *See supra* Section IV. We thus reject claims that we somehow are using forbearance to increase regulation. *See, e.g.*, Letter from CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 10-11 (filed Feb. 10, 2015); Letter from Timothy M. Boucher, Associate General Counsel, CenturyLink, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3-4 (filed Feb. 4, 2015). Rather, we are using it to tailor the regulatory regime otherwise applicable to these telecommunications services.

performance or price per megabit in the recent past that we discussed above,[1342] we again find them sufficiently speculative and subject to debate that they do not overcome our forbearance analysis for sections 201 and 202 above.[1343] Moreover, as we noted above, our decision not to forbear from applying sections 201 and 202 not only enables our open Internet regulatory framework but supports our grant of broad forbearance from other provisions and regulations, as discussed below.[1344] In particular, as discussed below, we find that our sections 201 and 202 authority provides a more flexible framework better suited to this marketplace than many of the alternative regulations that otherwise would apply.[1345]

450. Nor do commenters adequately explain how forbearance could be tailored in these ways, at least in the context of case-by-case adjudication. For broadband providers' interconnection practices, which are not covered by the open Internet rules we adopt today, we expressly rely on the backstop of sections 201 and 202 for case-by-case decision making.[1346] We also rely on both sections 201 and 202 for conduct that is covered by the open Internet rules adopted here. Those rules reflect the Commission's interpretation of how sections 201 and 202 apply in that context, and thus the requirements of section 201 and 202 are coextensive as to broadband Internet access service covered by those rules. Commenters do not indicate, nor does the record otherwise reveal, an administrable way for the Commission to grant the requested partial forbearance while still pursuing such case-by-case decisions in the future. Further, while section 706 of the 1996 Act would remain, as well, we find that sections 201 and 202 provide a more certain foundation for evaluating providers' conduct and pursuing enforcement if warranted in relevant circumstances arising in the future.[1347] We thus are not persuaded that even these more limited proposals for forbearance from provisions in sections 201 and/or 202 as applied on a case-by-case basis would be in the public interest under section 10(a)(3).

451. Although we conclude that the section 10 criteria are not met with respect to the full scope of forbearance that these commenters seek, because we do not and cannot envision adopting new *ex ante* rate regulation of broadband Internet access service in the future, we forbear from applying sections 201 and 202 to broadband services to that extent. As described above, our approach here is informed by the success of the CMRS framework, which has not, in practice, involved *ex ante* rate regulation. In addition, as courts have recognized, when exercising its section 10 forbearance authority "[g]uided by section 706," the Commission permissibly may "decide[] to balance the future benefits" of encouraging broadband deployment "against [the] short term impact" from a grant of forbearance.[1348] Under the totality of the circumstances here, including the protections of our open Internet rules—which focus on what we identify and the most significant problems likely to arise regarding these broadband services—and our ability to address issues *ex post* under sections 201 and 202 we do not find *ex ante* rate regulations necessary for purposes of section 10(a)(1) and (a)(2). Further, guided by section 706, and reflecting the tailored regulatory approach we adopt in this item,[1349] we find it in the public interest to forbear from applying sections 201 and 202 insofar as they would support the adoption of *ex ante* rate

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[1342] *See, e.g.*, NCTA Jan. 14, 2015 *Ex Parte* Letter at 4.

[1343] *See supra* para.445.

[1344] *See infra* Sections V.C.2, V.C.3.

[1345] *See infra* Section V.C.2.e (relying in part on the applicability of section 201(a), in particular, as part of the justification for forbearance from other interconnection requirements).

[1346] *See supra* Section III.D.2.

[1347] *See supra* Section III.F.4.

[1348] *EarthLink*, 462 F.3d at 9.

[1349] Our decision to proceed in a tailored manner is discussed in greater detail below. *See infra* paras. 495-496; Section V.C.2.a.

regulations for broadband Internet access service in the future.

452. To the extent some commenters express concern about future rules that the Commission might adopt based on this section 201 and 202 authority,[1350] we cannot, and do not, envision going beyond our open Internet rules to adopt *ex ante* rate regulations based on that section 201 and 202 authority in this context. Consequently, we forbear from sections 201 and 202 in that respect, as discussed above. In this Order, we decide only that forbearance from sections 201 and 202 of the Act to broadband Internet access service is not warranted under section 10 to the extent described above. Indeed, we find here that the application of sections 201 and 202 of the Act enable us to forbear from other requirements, including pre-existing tariffing requirements and Commission rules governing rate regulation, which we find are not warranted here.[1351] Thus, any pre-existing rate regulations adopted by the Commission under its Title II authority—including any regulations adopted under sections 201 and 202—will not be imposed on broadband Internet access service as a result of this Order. Finally, while other types of rules also potentially could be adopted based on section 201 and 202 authority, any Commission rules adopted in the future would remain subject to judicial review under the APA.[1352]

2. Enforcement

453. We also retain certain fundamental Title II enforcement provisions, as well as the Commission's rules governing section 208 complaint proceedings. In particular, we decline to forbear from applying section 208 of the Act and the associated procedural rules, which provide a complaint process for enforcement of applicable provisions of the Act or any Commission rules.[1353] Section 208 permits "[a]ny person, any body politic, or municipal organization, or State commission, complaining of anything done or omitted to be done by any common carrier subject to this chapter in contravention of the provisions thereof" to file a complaint with the Commission and seek redress.[1354] We also retain additional statutory provisions that we find necessary to ensuring a meaningful enforcement process. In particular, we decline to forbear from sections 206, 207, and 209 as a necessary adjunct to the section 208 complaint process. As the Commission has held previously, forbearing from sections 206, 207, and 209 "would eviscerate the protections of Section 208" because "[w]ithout the possibility of obtaining redress through collection of damages, the complaint remedy is virtually meaningless."[1355] We similarly do not

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[1350] *See, e.g.*, Ericsson Comments at 11 (expressing concern about the risks of long-term rate regulation and other uncertainties caused by the application of Sections 201 and 202); NCTA Reply at 15 (citing a "dizzying array" of requirements that the Commission has adopted in the past pursuant to its authority under sections 201 and 202).

[1351] *See infra* Sections V.C.2, V.C.3.

[1352] In this regard, commenters advocating forbearance from sections 201 and 202 to guard against new rules that the Commission might adopt pursuant to that authority do not meaningfully explain what incremental benefit that would achieve given that any future Commission proceeding would be required to adopt such rules in any case. *See, e.g.*, Comcast Dec. 24, 2014 *Ex Parte* Letter at 18; Letter from Matthew A. Brill, Counsel for NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 5-6 (filed Jan. 14, 2015) (NCTA Jan. 15, 2015 *Ex Parte* Letter).

[1353] 47 U.S.C. § 208; *see, e.g.*, 47 C.F.R. §§ 1.701-.736 (informal and formal complaints regarding common carriers), 8.12-.17 (rules for formal complaints alleging violation of open Internet rules).

[1354] 47 U.S.C. § 208.

[1355] *Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Servs*., Second Report and Order, 9 FCC Rcd 1411, 1482, para. 16 (1994) (*CMRS Title II Forbearance Order*). *See also, e.g.*, Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 21 (discussing sections 206 and 207). Allowing for the recovery of damages does not mean that an award of damages necessarily would be appropriate in all, or even most, cases. The Commission has discretion to deny an award of damages and grant only prospective injunctive-type relief where a case raises novel issues on which the Commission has not previously spoken, or where the measurement of damages would be speculative. The Commission also has authority to adopt rules and

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forbear from sections 216 and 217, which "merely extend the Title II obligations of [carriers] to their trustees, successors in interest, and agents. The sections were intended to ensure that a common carrier could not evade complying with the Act by acting through others over whom it has control or by selling its business."[1356] Thus, we decline to forbear from enforcing these key Title II enforcement provisions with respect to broadband Internet access service.

454. We find that forbearance from these key enforcement provisions and the associated procedural rules does not satisfy any of the section 10(a) criteria. As discussed above, we decline to forbear from enforcement of sections 201 and 202 as they apply to broadband Internet access service.[1357] To make application of these provisions meaningful, the possibility of enforcement needs to be available. Consequently, insofar as we find above that sections 201 and 202 are necessary to guard against unjust, unreasonable, or unjustly or unreasonably discriminatory conduct by broadband providers and to protect consumers, that presumes the viability of enforcement. For these same reasons, forbearance from these key Title II enforcement provisions would not be in the public interest. Thus, our conclusion that section 10(a) is not met as to these key Title II enforcement provisions builds on our prior conclusion to that effect as to sections 201 and 202.[1358]

455. In the event that a carrier violates its common carrier duties, the section 208 complaint process would permit challenges to a carrier's conduct, and many commenters advocate for section 208 to apply.[1359] The Commission's procedural rules establish mechanisms to carry out that enforcement function in a manner that is well-established and clear for all parties involved. The Commission has never previously forborne from section 208.[1360] Indeed, we find it instructive that in the CMRS context Congress specifically precluded the Commission from using section 332 to forbear from section 208.[1361] Commenters also observe the important interrelationship between section 208 and sections 206, 207, 209, 216, and 217,[1362] which the Commission itself has recognized in the past, as discussed above.[1363] In addition, to forbear from sections 216 and 217 would create a loophole in our ability to evenly enforce the Act, which would imperil our ability to protect consumers and to protect against unjust or unreasonable conduct, and would be contrary to the public interest. The prospect that carriers may be forced to defend their practices before the Commission supports the strong public interest in ensuring the reasonableness

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procedures that are narrowly tailored to address the circumstances under which damages would be available in particular types of cases.

[1356] *Wireless Forbearance Order*, 9 FCC Rcd at 1482, para. 186.

[1357] *See supra* Section V.B.1.

[1358] Consistent with our analysis above, *see supra* para.448, although section 706 of the 1996 Act would remain, these Title II enforcement provisions provide a more certain foundation for pursuing enforcement if warranted in relevant circumstances arising in the future. *See supra* Section III.F.4.

[1359] *See, e.g.*, AARP Comments at 42; CDT Comments at 15; COMPTEL Comments at 22-23; Mozilla Comments at 13; Free Press Reply at 26-27; Sidecar Technologies Reply at 6.

[1360] *2010 Broadband Classification NOI*, 25 FCC Rcd at 7898, para. 75

[1361] 47 U.S.C. § 332(c)(1).

[1362] *See, e.g.*, Public Knowledge et al. Comments at 93.

[1363] Because we conclude that forbearance is not warranted under the section 10(a) criteria, we need not, and do not, reach the question of the scope of our authority to forbear from provisions such as 206 and 207. *Compare, e.g.*, Letter from Matthew A. Brill, Counsel for NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2-4 (filed Feb. 20, 2015) (NCTA Feb. 20, 2015 *Ex Parte* Letter) (arguing that we have authority under section 10 to fully forbear from sections 206 and 207) *with, e.g.*, Public Knowledge Comments at 93 (questioning whether we have authority to forbear from section 207).

and non-discriminatory nature of those actions, protecting consumers, and advancing our overall public interest objectives.[1364] While some commenters express fears of "threats of abusive litigation" or other burdens arising from the application of these provision,[1365] other commenters correctly note the speculative nature of those arguments given the lack of evidence of such actions where those provisions historically have applied (including in the CMRS context).[1366] In hearing section 207 claims, courts have historically been careful to consider the Commission's views as a matter of primary jurisdiction on the reasonableness of a practice under section 201(b), both in general and before awarding damages under section 207. In a number of cases, courts have held that there is no entitlement to damages under section 207 for a claim under section 201(b) unless the Commission has already determined that a particular practice is "unreasonable."[1367] We endorse that approach here. At a minimum, we believe that courts reviewing BIAS practices under section 207 in the first instance should recognize the Commission's primary jurisdiction in a context such as this.[1368] The doctrine of primary jurisdiction is particularly

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[1364] For the reasons discussed above, we thus reject the assertions of some commenters that enforcement is unduly burdensome. *See, e.g.*, ACA Comments at 63-64 (expressing concern about unspecified "[i]ncreased legal expenses and time associated with case-by-case adjudication of rates, terms, conditions of service under Section 208"). In particular, we are not persuaded that such concerns outweigh the overarching interest advanced by the enforceability of sections 201 and 202. Nothing in the record demonstrates that our need for enforcement differs among broadband providers based on their size, and we thus are not persuaded that a different conclusion in our forbearance analysis should be reached in the case of small broadband providers, for example. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; Letter from Gregory A. Friedman, Owner, AireBeam, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 2 (filed Jan. 30, 2015) (AireBeam Jan. 30, 2015 *Ex Parte* Letter).

[1365] *See, e.g.*, NCTA Feb. 20, 2015 *Ex Parte* Letter at 6.

[1366] *See, e.g.*, Letter from Harold Feld, Senior Vice President, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 2-3 (filed Feb. 20, 2015).

[1367] *See, e.g.*, *North Cty. Commc'ns Corp. v. California Catalog & Tech.*, 594 F.3d 1149, 1158 (9th Cir. 2010) (*North County*) ("[G]iven the broad language of" section 201(b), "it is within the Commission's purview to determine whether a particular practice constitutes a violation for which there is a private right to compensation."); *Hoffman v. Rashid*, 388 Fed. Appx. 121, 123 (3d Cir. 2010) (adopting the same position in a *per curiam* opinion that summarily affirmed the district court's judgment); *Iris Wireless LLC v. Syniverse Tech.*, 2014 WL 4436021, *3 (M.D. Fla. Sept. 8, 2014) ("a court should not 'fill in the analytical gap' where the Commission has not made a determination regarding whether a company's action violates section 201(b)") (quoting *North County*, 594 F.3d at 1158); *see also id.* ("if the Court were to make a declaratory ruling" on an issue that the Commission had not yet addressed, "it would 'put interpretation of a finely-tuned regulatory scheme squarely in the hands of private parties and some 700 federal district judges, instead of in the hands of the Commission'") (quoting *North County*, 594 F.3d at 1158); *Havens v. Mobex Network Servs., LLC*, 2011 WL 6826104, *9 (D.N.J. Dec. 22, 2011) (in dismissing a claim that "it is a violation of section 201(b) for a party to 'warehouse' toll free numbers without identified subscribers," the court reasoned that because previous Commission orders "do not address the precise type of conduct at issue in this case," the court could not "risk disturbing the delicate regulatory framework that the Commission is tasked with maintaining").

[1368] *In re Long Distance Telecomm. Litigation*, 831 F.2d 627, 631 (6th Cir. 1987) ("claims based on section 201(b) of the Communications Act are within the primary jurisdiction of the FCC," and an assessment of whether "defendants engaged in unreasonable practices . . . is a determination that Congress has placed squarely in the hands of the [FCC]") (internal quotation marks omitted); *Free Conferencing Corp. v. T-Mobile US, Inc.*, 2014 WL 7404600, *7 (C.D. Cal. Dec. 30, 2014) (because "re-routing calls to rural LECs is an evolving area of law," and because it "is important to 'protect[ ] the integrity' of the FCC's evolving regulatory scheme," the court decided "not to meddle" in this area until the Commission had ruled on the question) (quoting *United States v. General Dynamics Corp.*, 828 F.2d 1356, 1362 (9th Cir. 1987)); *James v. Global Tel*Link Corp.*, 2014 WL 4425818, **6-7 (D.N.J. Sept. 8, 2014) ("where the question is whether an act is reasonable" under section 201(b), "primary jurisdiction should be applied"; the reasonableness of defendants' charges and practices in providing inmate calling services "implicates technical and policy questions that the FCC has the special expertise to decide in the first instance")

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important here, because the broadband Internet ecosystem is highly dynamic and the Commission has carefully designed a regulatory framework for BIAS to protect Internet openness and other important communications network values without deterring broadband investment and innovation. As a result, for all of the forgoing reasons, we conclude that none of the section 10(a) criteria are met as to forbearance from these fundamental Title II enforcement provisions and the associated Commission procedural rules with respect to the broadband Internet access service.

C. Forbearance Analysis Specific to Broadband Internet Access Service

456. As discussed elsewhere, with respect to broadband Internet access service we find that the standard for forbearance is not met with respect to the following limited provisions:

a) sections 201, 202, and 208, along with the related enforcement provisions of sections 206, 207, 209, 216, and 217, and the associated complaint procedures; and the Commission's implementing regulations (but, to be clear, the Commission forbears from all ratemaking regulations adopted under sections 201 and 202);[1369]

b) section 222, which establishes core customer privacy protections;

c) section 224 and the Commission's implementing regulations, which grant certain benefits that will foster network deployment by providing telecommunications carriers with regulated access to poles, ducts, conduits, and rights-of-way;

d) sections 225, 255, and 251(a)(2), and the Commission's implementing regulations, which collectively advance access for persons with disabilities; except that the Commission forbears from the requirement that providers of broadband Internet access service contribute to the Telecommunications Relay Service (TRS) Fund at this time. These provisions and regulations support the provision of TRS and require providers of broadband Internet access service, as telecommunications carriers, to ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable; and

e) section 254, the interrelated requirements of section 214(e), and the Commission's implementing regulations to strengthen the Commission's ability to support broadband, supporting the Commission's ongoing efforts to support broadband deployment and adoption; the Commission forbears from immediate contributions requirements, however, in light of the ongoing Commission proceeding.[1370]

457. We naturally also do not forbear from applying open Internet rules[1371] and section 706 of the 1996 Act itself. For convenience, we collectively refer to these provisions and regulations for purposes of this Order as the "core broadband Internet access service requirements."

458. Beyond those core broadband Internet access service requirements we grant extensive forbearance as permitted by our authority under section 10 of the Act. As described in greater detail below, it is our predictive judgment that the statutory and regulatory requirements that remain are sufficient to ensure just, reasonable, and not unjustly or unreasonably discriminatory conduct by providers

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(internal quotation marks omitted); *Demmick v. Cellco P'ship*, 2011 WL 1253733, *6 (D.N.J. March 29, 2011) ("courts have consistently found that reasonableness determinations under [section] 201(b) lie within the primary jurisdiction of the FCC, because they involve policy considerations within the agency's discretion and particular field of expertise").

[1369] *See supra* Section V.B.1.

[1370] *See infra* Section V.C.1.

[1371] *See supra* Section III.

of broadband Internet access service and to protect consumers with respect to broadband Internet access service. Those same considerations, plus the overlay of section 706 of the 1996 Act and our desire to proceed incrementally when considering what new requirements that should apply here, likewise persuade us that this forbearance is in the public interest.

459. Our forbearance decision in this subsection focuses on addressing consequences arising from the classification decision in this Order regarding broadband Internet access service.[1372] Thus, we do not forbear with respect to requirements to the extent that they already applied prior to this Order without regard to the classification of broadband Internet access service. For example, as discussed in greater detail below, this includes things like certain requirements of the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA),[1373] as well as things like liability-limitation provisions that do not vary in application based on the classification of broadband Internet access service.[1374] Similarly, to the extent that provisions or regulations apply to an entity by virtue of other services it provides besides broadband Internet access service, the forbearance in this Order does not extend to that context.[1375]

[1372] The *2014 Open Internet NPRM* here did not contemplate possible forbearance from the open Internet rules themselves, and thus they are beyond the scope of regulations addressed by this forbearance decision. In any case, the very reasons that persuade us to adopt the rules in the Order likewise demonstrate that forbearance from those rules would not satisfy the section 10(a) criteria here.

[1373] *See infra* Section V.C.1.b.

[1374] *See infra* Section V.C.3.

[1375] This Order does not alter any additional or broader forbearance previously granted that already might encompass broadband Internet access service in certain circumstances, for example, insofar as broadband Internet access service, when provided by mobile providers, is a CMRS service. As one example, the Commission has granted some forbearance from section 310(d) for certain wireless licensees that meet the definition of "telecommunications carrier," *see generally Federal Communications Bar Association's Petition for Forbearance from Section 310(d) of the Communications Act*, Memorandum Opinion and Order, 13 FCC Rcd 6293 (1998) (*FCBA Forbearance Order*), but section 310(d) is not itself framed in terms of "common carriers" or "telecommunications carriers" or providers of "CMRS" or the like, nor is it framed in terms of "common carrier services," "telecommunications services," "CMRS services" or the like. To the extent that such forbearance thus goes beyond the forbearance for wireless providers granted in this Order, this Order does not narrow or otherwise modify that pre-existing grant of forbearance. For clarity, we observe, however, that the broadband Internet access service covered by our open Internet rules is beyond the scope of a petition for forbearance from Verizon regarding certain broadband services that was deemed granted by operation of law on March 19, 2006. *See Verizon Telephone Companies' Petition for Forbearance from Title II and Computer Inquiry Rules with Respect to their Broadband Services Is Granted by Operation of Law*, WC Docket No. 04-440, News Release (rel. Mar. 20, 2006). While Verizon's initial petition sought broad relief from "all" broadband services, in its February 7, 2006, amendment to its petition, Verizon provided a "List of Broadband Services for Which Verizon Is Seeking Forbearance," which did not encompass a broadband Internet access service of the sort at issue here. Letter from Edward Shakin, Vice President and Associate General Counsel, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-440, Attach. 1 (filed Feb. 7, 2006) (Verizon Feb. 7, 2006 Forbearance *Ex Parte* Letter). Indeed, the Commission previously has distinguished between the enterprise broadband services for which Verizon was deemed granted relief by operation of law and broadband Internet access service. *Compare Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, As Amended (47 U.S.C. § 160(c)), For Forbearance From Certain Dominant Carrier Regulation of Its Interstate Access Services, and For Forbearance From Title II Regulation of Its Broadband Services, In the Anchorage, Alaska, Incumbent Local Exchange Carrier Study Area*, WC Docket No. 06-109, Memorandum Opinion and Order, 22 FCC Rcd 16304, 16315-16, para. 21 (2007) ("ACS seeks relief 'consistent with that granted to Verizon Telephone Companies on March 19, 2006,' for 'broadband services.' Specifically, ACS seeks relief from regulation as a common carrier or telecommunications service provider for any packetized broadband services it offers or may offer in Anchorage.") *with id*. at 16318, para. 25 (distinct from the request for forbearance comparable to that deemed granted to Verizon, "ACS requests conditional forbearance from dominant carrier regulation of its interstate switched and special access services, and contends that such relief would

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460. In addition, prior to this Order some incumbent local exchange carriers or other common carriers chose to offer Internet transmission services as telecommunications services subject to the full range of Title II requirements.[1376] Our forbearance with respect to broadband Internet access service does not encompass such services. As a result, such providers remain subject to the rights and obligations that arise under Title II and the Commission's rules by virtue of their elective provision of such services,[1377] along with the rules adopted to preserve and protect the open Internet to the extent that those services fall within the scope of those rules.[1378]

1. Provisions that Protect Customer Privacy, Advance Access For Persons with Disabilities, and Foster Network Deployment

461. We generally grant extensive forbearance from the provisions and requirements that newly apply by virtue of our classification of broadband Internet access service. However, the record persuades us that we should not forbear with respect to certain key provisions that protect customer privacy, advance access for persons with disabilities, and foster network deployment.

a. Customer Privacy (Section 222)

462. As supported by a number of commenters, we decline to forbear from applying section 222 of the Act in the case of broadband Internet access service.[1379] We do, however, find the section 10(a) criteria met to forbear at this time from applying our implementing rules, pending the adoption of rules to govern broadband Internet access service in a separate rulemaking proceeding. Section 222 of the Act governs telecommunications carriers' protection and use of information obtained from their

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be consistent with the *Qwest Omaha Order*. To the extent that ACS seeks relief for . . . mass market broadband Internet access transmission services, its request falls within the same category of services for which relief was granted to Qwest."). *See also, e.g.*, *Petition of AT&T Inc. For Forbearance Under 47 U.S.C. § 160(c) From Title II and Computer Inquiry Rules With Respect To Its Broadband Services, et al*., WC Docket No. 06-125, Memorandum Opinion and Order, 22 FCC Rcd 18705, 18714-15, para. 14 n. 59 (2008) ("Verizon restricted its forbearance request to ten of its then-existing telecommunications services offerings. See Verizon WC Docket No. 04-440 Feb. 7 Letter at Attach. 1, at 1 (providing 'List of Broadband Services for Which Verizon Is Seeking Forbearance').").

[1376] We note that the Commission did adopt permissive detariffing for such services. *Wireline Broadband Classification Order*, 20 FCC Rcd at 14900-03, paras. 89-95. *See also, e.g.*, Letter from Michael R. Romano, Senior Vice President—Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Feb. 9, 2015) ("as part of any statements with respect to classification of broadband in the order, NTCA urged the Commission to ensure that small rural telcos such as those within NTCA's membership can continue to avail themselves of the option to tariff broadband-capable transmission services that underpin retail broadband Internet access services.").

[1377] *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14927-29, paras. 139-44 (discussing the application of section 254(k) and related cost-allocation rules); *id*. at paras. 126-27 ("Thus, competitive LECs will continue to have the same access to UNEs, including DS0s and DS1s, to which they are otherwise entitled under our rules, regardless of the statutory classification of service the incumbent LECs provide over those facilities. So long as a competitive LEC is offering an 'eligible' telecommunications service – i.e., not exclusively long distance or mobile wireless services – it may obtain that element as a UNE."). For example, if a rate-of-return incumbent LEC (or other provider) voluntarily offers Internet transmission outside the forbearance framework adopted in this Order, it remains subject to the pre-existing Title II rights and obligations, including those from which we forbear in this Order.

[1378] If such a provider wants to change to offer Internet access services pursuant to the construct adopted in this Order, it should notify the Wireline Competition Bureau 60 days prior to implementing such a change.

[1379] *See, e.g.*, CDT Comments at 16; NMR Comments at 25; Rural Broadband Policy Group Comments at 8-9; Public Knowledge Dec. 19, 2014 *Ex Parte* Letter at 19; Free Press Nov. 21, 2014 *Ex Parte* Letter at 1; Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 21.

customers or other carriers, and calibrates the protection of such information based on its sensitivity. Congress provided protections for proprietary information, according the category of customer proprietary network information (CPNI)[1380] the greatest level of protection. Section 222 imposes a duty on every telecommunications carrier to protect the confidentiality of its customers' private information.[1381] Section 222 also imposes restrictions on carriers' ability to use, disclose, or permit access to customers' CPNI without their consent.[1382]

463. We find that forbearance from the application of section 222 with respect to broadband Internet access service is not in the public interest under section 10(a)(3), and that section 222 remains necessary for the protection of consumers under section 10(a)(2).[1383] The Commission has long supported protecting the privacy of users of advanced services, and retaining this provision thus is consistent with the general policy approach.[1384] The Commission has emphasized that "[c]onsumers' privacy needs are no less important when consumers communicate over and use broadband Internet access than when they

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[1380] CPNI is defined as "(A) information that relates to the quantity, technical configuration, type, destination, location, and amount of use of a telecommunications service subscribed to by any customer of a telecommunications carrier, and that is made available to the carrier by the customer solely by virtue of the carrier-customer relationship; and (B) information contained in the bills pertaining to telephone exchange service or telephone toll service received by a customer of a carrier." 47 U.S.C. § 222(h)(1).

[1381] 47 U.S.C. § 222(a); *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927, 6959, para. 64 (2007); Declaratory Ruling, 28 FCC Rcd 9609 (2013). We take this mandate seriously. For example, the Commission recently took enforcement action under section 222 (and section 201(b)) against two telecommunications companies that stored customers' personal information, including social security numbers, on unprotected, unencrypted Internet servers publicly accessible using a basic Internet search. This unacceptably exposed these consumers to the risk of identity theft and other harms. *See TerraCom, Inc. and YourTel America, Inc. Apparent Liability for Forfeiture*, File No.: EB-TCD-13-00009175, Notice of Apparent Liability, FCC 14-173, paras. 31-41 (rel. Oct. 24, 2014). *See also, e.g.*, Letter from Erik Stallman, Director, Open Internet Project, CDT, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 3-4 (filed Feb. 4, 2015) (CDT Feb. 4, 2015 *Ex Parte* Letter).

[1382] *See* 47 U.S.C. § 222(c)(1) (permitting a carrier, except as required by law or with the customer's consent, to use, disclose, or permit access to individually identifiable CPNI only "in its provision of (A) the telecommunications service from which such information is derived, or (B) services necessary to, or used in, the provision of such telecommunications service, including the publishing of directories."). The Commission has made clear that "to the extent a telecommunications carrier that is a provider of electronic communication services or remote computing services is compelled by 18 U.S.C. § 2258A to disclose CPNI in a report to the CyberTipline, that carrier would not be in violation of its privacy duties under section 222 of the Communications Act." *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use Of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, Declaratory Ruling, 25 FCC Rcd 14335, 14336-37, para. 5 (Wireline Comp. Bur. 2010). *See also Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, Declaratory Ruling, 21 FCC Rcd 9990 (2006) (addressing the predecessor disclosure provision). That interpretation of section 222 remains true as to broadband Internet access service.

[1383] 47 U.S.C. § 160(a)(2), (3).

[1384] For example, the Commission has noted that "long before Congress enacted section 222 of the Act, the Commission had recognized the need for privacy requirements associated with the provision of enhanced services and had adopted CPNI-related requirements in conjunction with other *Computer Inquiry* obligations." *Wireline Broadband Classification Order*, 20 FCC Rcd at 14931, para. 149 & n.447 (seeking comment on privacy protections).

rely on [telephone] services."[1385] As broadband Internet access service users access and distribute information online, the information is sent through their broadband provider. Broadband providers serve as a necessary conduit for information passing between an Internet user and Internet sites or other Internet users, and are in a position to obtain vast amounts of personal and proprietary information about their customers.[1386] Absent appropriate privacy protections, use or disclosure of that information could be at odds with those customers' interests.

464. We find that if consumers have concerns about the privacy of their personal information, such concerns may restrain them from making full use of broadband Internet access services and the Internet, thereby lowering the likelihood of broadband adoption and decreasing consumer demand.[1387] As the Commission has found previously, the protection of customers' personal information may spur consumer demand for those services, in turn "driving demand for broadband connections, and consequently encouraging more broadband investment and deployment" consistent with the goals of the 1996 Act.[1388] Notably, commenters opposing the application of section 222 to broadband Internet access service make general arguments about the associated burdens, but do not include a meaningful analysis of why the section 10(a) criteria are met (or why relief otherwise should be granted) nor why the concerns they identify—even assuming *arguendo* that they were borne out by evidence beyond that currently in the record—should outweigh the privacy concerns identified here.[1389] We therefore conclude that the application and enforcement of section 222 to broadband Internet access services is in the public interest, and necessary for the protection of consumers.[1390]

[1385] *Id*. at 14930, para. 148 ("For example, a consumer may have questions about whether a broadband Internet access service provider will treat his or her account and usage information as confidential, or whether the provider reserves the right to use account information for marketing and other purposes.").

[1386] *See, e.g.*, Access Comments at 7 (stating that broadband providers have the technological capacity to exercise monitoring and control of their customers' use of the Internet using techniques such as deep packet inspection).

[1387] *See, e.g.*, *2015 Broadband Progress Report*, paras. 104-05; National Broadband Plan at 17 (citing John Horrigan, *Broadband Adoption and Use in America* (OBI, Working Paper No. 1, 2010). *See also, e.g.*, Pew Research Center, *Who's not online and why*, at 6 (Sept. 2013), http://www.pewinternet.org/files/old-media/Files/Reports/2013/PIP_Offline%20adults_092513_PDF.pdf.

[1388] *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, CC Docket No. 96-115, WC Docket No. 04-36, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927, 6957, para. 59 (2007); *see also* National Broadband Plan at 55 (explaining that without privacy protections, new innovation and investment in broadband applications and content may be held back, and these applications and content, in turn, are likely the most effective means to advance many of Congress's goals for broadband).

[1389] *See, e.g.*, MediaFreedom Comments at 2; TIA Comments at 17; ADTRAN Reply at 17-18; Letter from Robert W. Quinn, Jr., Senior Vice President, Federal Regulatory and Chief Privacy Officer, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 5 (filed May 9, 2014). Consequently, we reject those arguments.

[1390] *See* 47 U.S.C. § 160(a)(2); *see also, e.g.*, Free Press Comments at 83, n.180; Public Knowledge Reply at 20-22. Some commenters contend that the Commission should forbear from all of Title II based on generalized arguments about the marketplace, such as past network investment or changes in performance or price per megabit in the recent past. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 10-11; Comcast Dec. 24, 2014 *Ex Parte* Letter at 4-6; NCTA Dec. 23, 2014 *Ex Parte* Letter at 19-20. We are not persuaded that those arguments justify a different outcome here, both for the reasons discussed previously, *see supra* Section V.B.1, and because commenters do not meaningfully explain how these arguments impact the section 10 analysis here, given that the need to protect consumer privacy is not self-evidently linked to such marketplace considerations. Nothing in the record suggests that concerns about consumer privacy are limited to broadband providers of a particular size, and we thus are not persuaded that a different conclusion in our forbearance analysis should be reached in the case of small broadband providers, for example. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; AireBeam Jan. 30, 2015 *Ex Parte* Letter at 2.

465. We also reject arguments that section 706 itself provides adequate protections such that forbearance from section 222 is warranted.[1391] While section 706 of the 1996 Act would continue to apply even if we granted forbearance here, we find that section 222 provides a more certain foundation for evaluating providers' conduct and pursuing enforcement if warranted in relevant circumstances arising in the future.[1392] Among other things, while the concerns discussed in the preceding paragraph have a nexus with the standards of sections 706(a) and (b), as discussed earlier in this section, the public interest in protecting customer privacy is not limited to the universe of concerns encompassed by section 706.

466. We recognize that some commenters, while expressing concern about consumer privacy, nonetheless suggest that the Commission conceivably need not immediately apply section 222 and its implementing rules, pending further proceedings.[1393] We are persuaded by those arguments, but only as to the Commission's rules. With respect to the application of section 222 of the Act itself, as discussed above, with respect to broadband Internet access service the record here persuades us that the section 10(a) forbearance criteria are not met to justify such relief. Indeed, even as to services that historically have been subject to section 222, questions about the application of those privacy requirements can arise and must be dealt with by the Commission as technology evolves,[1394] and the record here does not demonstrate specific concerns suggesting that Commission clarification of statutory terms as needed would be inadequate in this context.[1395]

467. We are, however, persuaded that the section 10(a) criteria are met for us to grant forbearance from applying our rules implementing section 222 insofar as they would be triggered by the

(Continued from previous page)

[1391] *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; NCTA Jan. 14, 2015 *Ex Parte* Letter at 3-4.

[1392] *See, e.g.*, *supra* Section III.F.4. We also note, for example, that this approach obviates the need to determine whether or to what extent section 222 is more specific than section 706 of the 1996 Act in relevant respects, and thus could be seen as exclusively governing over the provisions of section 706 of the 1996 Act as to some set of privacy issues. *Cf. Bloate v. U.S.*, 559 U.S. 196, 208 (2010) ("'[g]eneral language of a statutory provision, although broad enough to include it, will not be held to apply to a matter specifically dealt with in another part of the same enactment'") (citation omitted). The approach we take avoids this potential uncertainty, and we thus need not and do not address this question.

[1393] *See, e.g.*, CDT Comments at 16; Letter from Marvin Ammori and Julie Samuels, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Nov. 12, 2014); Letter from COMPTEL, CCIA, Engine, and IFBA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1-2 n.1 (filed Dec. 30, 2014). While CDT references the questions regarding the application of section 222 and our implementing rules raised in the *2010 Broadband Classification NOI*, CDT Comments at 16 (citing *2010 Broadband Classification NOI*, 25 FCC Rcd at 7900-01, para. 82), that *NOI* cited reasons why the Commission might immediately apply section 222 and the Commission's implementing rules if it reclassified broadband Internet access service as well as reasons why it might defer the application of those requirements. We thus find that the *2010 NOI* does not itself counsel one way or the other, and in light of the record here, we decline to defer the application of section 222.

[1394] *See, e.g.*, *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, Declaratory Ruling, 28 FCC Rcd 9609 (2013) (*Wireless Device Privacy Declaratory Ruling*) ("address[ing] the real privacy and security risks that consumers face when telecommunications carriers use their control of customers' mobile devices to collect information about their customers' use of the network"). We also note in this regard that the Commission cannot impose a penalty in the absence of "fair notice of what is prohibited." *FCC v. Fox Television Stations*, 132 S. Ct. 2307, 2317 (2012).

[1395] *See, e.g.*, CDT Comments at 17 (asserting, without explanation, that a rulemaking might be needed to "address exactly how Section 222 should apply in the Internet connectivity context, including how to define 'customer proprietary network information' (CPNI) for this purpose"); Verizon Jan. 26, 2015 *Ex Parte* Letter at 7-8 (arguing that it is unclear what certain requirements of section 222 would mean in the context of broadband Internet access service).

classification of broadband Internet access service here. Beyond the core broadband Internet access service requirements, we apply section 222 of the Act, which itself directly provides important privacy protections.[1396] Further, on this record, we are not persuaded that the Commission's current rules implementing section 222 necessarily would be well suited to broadband Internet access service. The Commission fundamentally modified these rules in various ways subsequent to decisions classifying broadband Internet access service as an information service, and certain of those rules appear more focused on concerns that have been associated with voice service.[1397] For example, the current rules have requirements with respect to "call detail information," defined as "[a]ny information that pertains to the transmission of specific telephone calls, including, for outbound calls, the number called, and the time, location, or duration of any call and, for inbound calls, the number from which the call was placed, and the time, location, or duration of any call."[1398] More generally, the existing CPNI rules do not address many of the types of sensitive information to which a provider of broadband Internet access service is likely to have access, such as (to cite just one example) customers' web browsing history. Insofar as rules focused on addressing problems in the voice service context are among the central underpinnings of our CPNI rules, we find the better course to be forbearance from applying all of our CPNI rules at this time. As courts have recognized, when exercising its section 10 forbearance authority "[g]uided by section 706," the Commission permissibly may "decide[] to balance the future benefits" of encouraging broadband deployment "against [the] short term impact" from a grant of forbearance.[1399] In light of the record here and given that the core broadband Internet access requirements and section 222 itself will apply, and guided by section 706, we find that applying our current rules implementing sections 222—which, in critical respects, appear to be focused on addressing problems that historically arise regarding voice service—is not necessary to ensure just and reasonable rates and practice or for the protection of consumers under sections 10(a)(1) and (a)(2) and that forbearance is in the public interest under section 10(a)(3).[1400] We emphasize, however, that forbearance from our existing CPNI rules in the context of broadband Internet access services does not in any way diminish the applicability of these rules to services previously found to be within their scope.[1401]

[1396] *See, e.g.*, *TerraCom, Inc. and YourTel America, Inc. Apparent Liability for Forfeiture*, File No.: EB-TCD-13-00009175, Notice of Apparent Liability, FCC 14-173, paras. 31-41 (rel. Oct. 24, 2014); *Wireless Device Privacy Declaratory Ruling*, 28 FCC Rcd at 9619-20, paras. 29-32 (discussing statutory restrictions applicable to CPNI).

[1397] The Commission adopted significant reforms to its rules implementing section 222 in 2007. *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, CC Docket No. 96-115, WC Docket No. 04-36, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927 (2007). In doing so, the Commission was, in significant part, focused on dealing with problems of "pretexting," which involved "data brokers . . . obtain[ing] private and personal information, including what calls were made to and/or from a particular telephone number and the duration of such calls." *Id*. at 6928-29, para. 2; *see also id*. at 6928, para. 1 n.1 (noting Congress' criminalization of pretexting activity in 18 U.S.C. § 1039, which focuses on "phone" records).

[1398] 47 C.F.R. §§ 64.2003, 64.2010.

[1399] *EarthLink*, 462 F.3d at 9.

[1400] Our decision to proceed in a tailored manner is discussed in greater detail below. *See infra* paras. 495-496; Section V.C.2.a.

[1401] *See, e.g.*, *Wireless Device Privacy Declaratory Ruling*, 28 FCC Rcd 9609 (addressing how section 222 of the Act, and the Commission's implementing rules, apply to information relating to telecommunications service and interconnected VoIP service that fits the statutory definition of CPNI when such information is collected by the customer's device, provided the collection is undertaken at the mobile wireless carrier's direction and the carrier or its designee has access to or control over the information).

b. Disability Access Provisions (Sections 225, 255, 251(a)(2))

468. We agree with commenters that we should apply section 225 and the Commission's implementing rules—rather than forbear for broadband Internet access service—because of the need to ensure meaningful access to all Americans,[1402] except to the extent provided below with respect to contributions to the Interstate TRS Fund. Section 225 mandates the availability of interstate and intrastate TRS to the extent possible and in the most efficient manner to individuals in the United States who are deaf, hard of hearing, deaf-blind, and who have speech disabilities.[1403] The Act directs that TRS provide the ability for such individuals to engage in communication with other individuals, in a manner that is "functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services."[1404] To achieve this, the Commission has required all interstate service providers (other than one-way paging services) to provide TRS.[1405] People who are blind, hard of hearing, deaf-blind, and who have speech disabilities increasingly rely upon Internet-based video communications, both to communicate directly (point-to-point) with other persons who are deaf or hard of hearing who use sign language and through video relay service (VRS)[1406] with individuals who do not use the same mode of communication that they do.[1407] In doing so, they rely on high definition two-party or multiple-party video conferencing that necessitates a broadband connection.[1408] As technologies advance, section 225 maintains our ability to ensure that individuals who are deaf, hard of hearing, deaf-blind, and who have speech disabilities can engage in service that is functionally equivalent to the ability of a hearing individuals who do not have speech disabilities to use voice communication services.[1409] Limits imposed on bandwidth use through network management practices that might otherwise appear

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[1402] *See, e.g.*, Public Knowledge Comments at 95; Rural Broadband Policy Group Comments at 8; Telecommunications for the Deaf and Hard of Hearing Comments at 8-13.

[1403] 47 U.S.C. §§ 225(a)(3), (b)(1) .

[1404] 47 U.S.C. § 225(a)(3).

[1405] *See generally Telecommunications Relay Services, and the Americans with Disabilities Act of 1990*, CC Docket No. 90–571, Notice of Proposed Rule Making, 5 FCC Rcd 7187 (1990); Report and Order and Request for Comment, 6 FCC Rcd 4657, 4660, para. 17 (1991) (*TRS Order*); Order on Reconsideration, Second Report and Order and Further Notice of Proposed Rule Making, 8 FCC Rcd 1802 (1993) (*TRS II*); Third Report and Order, 8 FCC Rcd 5300 (1993) (*TRS III*).

[1406] VRS is a form of TRS that allows people who are blind, hard of hearing, deaf-blind, and who have speech disabilities who use sign language to communicate with voice telephone users through a CA using video transmissions over the Internet. *See* 47 C.F.R. § 64.601(a)(40).

[1407] *See generally Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*; *E911 Requirements for IP-Enabled Service Providers*, CG Docket No. 03-123, WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 11591 (2008) (*First Internet-Based TRS Order*); Second Report and Order and Order on Reconsideration, 24 FCC Rcd 791 (2008) (*Second Internet-Based TRS Order*). In addition, these populations rely on other forms of Internet-based TRS (iTRS), including Internet Protocol Relay Service (IP Relay) and Internet Protocol Captioned Telephone Service (IP CTS). IP Relay is a "telecommunications relay service that permits an individual with a hearing or a speech disability to communicate in text using an Internet Protocol-enabled device via the Internet, rather than using a text telephone (TTY) and the public switched telephone network." 47 C.F.R. § 64.601(a)(17). IP CTS is a "telecommunications relay service that permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an Internet Protocol-enabled device via the Internet to simultaneously listen to the other party and read captions of what the other party is saying." 47 C.F.R. § 64.601(a)(16).

[1408] *See, e.g.*, *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Declaratory Ruling, Order and Notice of Proposed Rulemaking, 25 FCC Rcd 6012, 6014, para. 3 (2010).

[1409] *See* 47 U.S.C. § 225(a)(3).

neutral, could have an adverse effect on iTRS users who use sign language to communicate by degrading the underlying service carrying their video communications. The result could potentially deny these individuals functionally equivalent communications service. Additionally, if VRS and other iTRS users are limited in their ability to use Internet service or have to pay extra for iTRS and point-to-point services, this could cause discrimination against them because for many such individuals, TRS is the only form of communication that affords service that is functionally equivalent to what voice users have over the telephone. Moreover, limiting their bandwidth capacity could compromise their ability to obtain access to emergency services via VRS and other forms of iTRS, which is required by the Commission's rules implementing section 225.[1410]

469. While we base the open Internet rules adopted here solely on section 706 of the 1996 Act and other provisions of the Act besides section 225—and thus do not adopt any new section 225-based rules in this Order—largely preserving this provision is important not only to the extent that it might be used in the future as the basis for new rules adopting additional protections but also to avoid any inadvertent uncertainty regarding Internet-based TRS providers' obligations under existing rules. To be compensated from the federal TRS fund, providers must provide service in compliance with section 225 and the Commission's TRS rules and orders.[1411] As discussed in the prior paragraph, however, a number of TRS services are carried via users' broadband Internet access services. Forbearing from applying section 225 and our TRS service requirements would risk creating loopholes in the protections otherwise afforded users of iTRS services or even just uncertainty that might result in degradation of iTRS. More specifically, if we forbear from applying these provisions, we run the risk of allowing actions taken by Internet access service providers to come into conflict with the overarching goal of section 225, *i.e.*, ensuring that the communication services made available through TRS are functionally equivalent, that is, mirror as closely as possible the voice communication services available to the general public. Enforcement of this functional equivalency mandate will protect against such degradation of service. In sum, with the exception of TRS contribution requirements discussed below, we find that the enforcement of section 225 is necessary for the protection of consumers under section 10(a)(2), and that forbearance would not be in the public interest under section 10(a)(3).

470. Notwithstanding the foregoing, for now we do forbear in part from the application of TRS contribution obligations that otherwise would newly apply to broadband Internet access service. Section 225(d)(3)(B) and our implementing rules require federal TRS contributions for interstate telecommunications services, which now would uniformly include broadband Internet access service by virtue of the classification decision in this order.[1412] Applying new TRS contribution requirements on broadband Internet access potentially could spread the base of contributions to the TRS Fund, having the benefit of adding to the stability of the TRS Fund. Nevertheless, before taking any steps that would depart from the *status quo* in this regard, the Commission would like to assess the need for such additional funding, and the appropriate contribution level, given the totality of concerns implicated in this context. As courts have recognized, when exercising its section 10 forbearance authority "[g]uided by section 706," the Commission permissibly may "decide[] to balance the future benefits" of encouraging broadband deployment "against [the] short term impact" from a grant of forbearance.[1413] Our decision, guided by section 706, to tailor the regulations applied to broadband Internet access service thus tips the balance in favor of the finding that applying new TRS fund contribution requirements at this time is not

[1410] *See* 47 C.F.R. § 64.605.

[1411] *See, e.g.*, *Purple Communications, Inc.*, File No.: EB-TCD-12-00000376, Notice of Apparent Liability, 29 FCC Rcd 5491, para. 29 & n.71 (2014) (citing and summarizing precedent).

[1412] 47 U.S.C. § 225(d)(3)(B); 47 C.F.R. § 64.604(c)(5)(iii).

[1413] *EarthLink*, 462 F.3d at 9.

necessary to ensure just, reasonable and nondiscriminatory conduct by the provider of broadband Internet access service or for the protection of consumers under sections 10(a)(1) and (a)(2) and that forbearance is in the public interest under section 10(a)(3).[1414] The competing considerations here make this a closer call under our section 10(a) analysis, however, and thus we limit our action only to forbearing from applying section 225(d)(3)(B) and our implementing rules insofar as they would immediately require new TRS contributions from broadband Internet access services but not insofar as they authorize the Commission to require such contributions should the Commission elect to do so in a rulemaking in the future.[1415] In particular, we find it in the public interest to limit our forbearance in this manner to enable us to act even more nimbly in the future should we need to do so based on future developments.[1416]

471. Nothing in our forbearance from TRS Fund contribution requirements for broadband Internet access service is intended to encompass, however, situations where incumbent local exchange carriers or other common carriers voluntarily choose to offer Internet transmission services as telecommunications services subject to the full scope of Title II requirements for such services. As a result, such providers remain subject to the Interstate TRS Fund contribution obligations that arise under section 225 and the Commission's rules by virtue of their elective provision of such services until such time as the Commission further addresses such contributions in the future.

472. Consistent with some commenters' proposals,[1417] with respect to broadband Internet access service we also do not forbear from applying sections 255 and the associated rules, which require telecommunications service providers and equipment manufacturers to make their services and equipment accessible to individuals with disabilities, unless not readily achievable.[1418] We also do not find the statutory forbearance test met for related protections afforded under section 251(a)(2) and our implementing rules, which precludes the installation of "network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255."[1419] We therefore do not forbear from this provision and our associated rules. In prior proceedings, the Commission has emphasized its commitment to implementing the important policy goals of section 255 in the Internet service context.[1420] Evidence cited in the National Broadband Plan also demonstrated that, while

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[1414] Our decision to proceed in a tailored manner is discussed in greater detail below. *See infra* paras.495-496; Section V.C.2.a.

[1415] As noted below, we do not forbear from the obligation of carriers that have chosen voluntarily to offer broadband as a Title II service to contribute to the Interstate TRS Fund.

[1416] *Cf. Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilitie*s, CG Docket Nos. 13-24, 03-123, Order and Notice of Proposed Rulemaking, 28 FCC Rcd 703, 707, para. 7 (2013) (describing potential Anti-Deficiency Act issues that could arise if there were insufficient TRS funds available and the impact that would have on all TRS programs) *rev'd Sorenson v. FCC*, 755 F.3d 702 (2014) (finding, in pertinent part, that the Commission had not sufficiently demonstrated the actual imminence of a fiscal calamity to support good cause to forgo notice and comment).

[1417] *See, e.g.*, Public Knowledge Comments at 95; Rural Broadband Policy Group Comments at 8; Telecommunications for the Deaf and Hard of Hearing Comments at 8-13; The Advanced Communications Law & Policy Institute at New York Law School Reply, Attach. 8; Letter from Teresa Favuzzi, Executive Director, California Foundation of Independent Living Centers, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 3 (filed Dec. 17, 2014) (CFILC Dec. 17, 2014 *Ex Parte* Letter).

[1418] 47 U.S.C. § 255.

[1419] 47 U.S.C. § 251(a)(2).

[1420] *See, e.g.*, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398, 2437-38, paras. 75-77

(continued….)

broadband adoption has grown steadily, it "lags considerably" among certain groups, including individuals with disabilities.[1421] Adoption of Internet access services by persons with disabilities can enable these individuals to achieve greater productivity, independence, and integration into society in a variety of ways.[1422] These capabilities, however, are not available to persons with disabilities if they face barriers to Internet service usage, such as inaccessible hardware, software, or services.[1423] We anticipate that increased adoption of services and technologies accessible to individuals with disabilities will, in turn, spur further availability of such capabilities, and of Internet access services more generally.[1424]

473. Our forbearance analysis regarding sections 255, 251(a)(2), and our implementing rules also is informed by the incremental nature of the requirements imposed.[1425] In particular, the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA),[1426] expanding beyond the then-existing application of section 255,[1427] adopted new section 716 of the Act, which requires that

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(1999) (*First Broadband Deployment Report*) ("We caution, however, that the promise of advanced telecommunications capability for people with disabilities will not be realized unless inherent barriers in telecommunications products and services are removed, and accessible equipment and services are widely available through mainstream markets. . . . [W] e are committed to taking advantage of any opportunities to encourage the deployment of advanced telecommunications service to people with disabilities. Plans for the deployment of advanced services should also address the needs of persons with disabilities."); *Wireline Broadband Classification Order*, 20 FCC Rcd at 14919-22, paras. 121-24 ("[T]he Commission will remain vigilant in monitoring the development of wireline broadband Internet access service and its effects on the important policy goals of section 255. As noted above, we will exercise our Title I ancillary jurisdiction to ensure achievement of important policy goals of section 255 and also section 225 of the Act.").

[1421] National Broadband Plan at 21; *id*. at 169 (stating, "Devices often are not designed to be accessible for people with disabilities."). *See also, e.g.*, CFILC Dec. 17, 2014 *Ex Parte* Letter at 1-2.

[1422] *See e.g.*, Elizabeth E. Lyle, *A Giant Leap & A Big Deal: Delivering on the Promise of Equal Access to Broadband for People with Disabilities*, 4 (FCC Omnibus Broadband Initiative, Working Paper No. 2, 2010) (OBI Working Paper No. 2) (noting broadband allows persons with disabilities to telecommute or run a business in their homes); CFILC Dec. 17, 2014 *Ex Parte* Letter at 1-2. Moreover, broadband can make telerehabilitation services possible, by providing long-term health and vocational support within the individual's home. *See, e.g.*, CFILC Dec. 17, 2014 *Ex Parte* Letter at 2; OBI Working Paper No. 2 at 4. Broadband can also provide increased access to online education classes and digital books and will offer real time interoperable voice, video and text capabilities for E911. *See, e.g.*, CFILC Dec. 17, 2014 *Ex Parte* Letter at 2; OBI Working Paper No. 2 at 5. In addition, as commenters note, "society as a whole" can "benefit[] when people with disabilities have access to [broadband Internet access] services in a manner equivalent to the non-disabled population." CFILC Dec. 17, 2014 *Ex Parte* Letter at 1.

[1423] *See, e.g.*, CFILC Dec. 17, 2014 *Ex Parte* Letter at 1-2; OBI Working Paper No. 2 at 4-5.

[1424] *Cf. Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, GN Docket No. 07-45, 23 FCC Rcd 9615, 9643-44, para. 57 (2008) (*Fifth Broadband Deployment Report*) (through actions to extend the requirements of sections 225 and 255, "the Commission availed broadband offerings to more Americans, which in turn increased broadband deployment demand").

[1425] *See, e.g.*, Ammori Dec. 19, 2014 *Ex Parte* Letter at 5.

[1426] Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (codified in various sections of 47 USC) (CVAA), *amended by* Pub. L. No. 111-265, 124 Stat. 2795 (2010) (technical corrections).

[1427] 47 U.S.C. § 617(f) ("The requirements of this section shall not apply to any equipment or services, including interconnected VoIP service, that are subject to the requirements of section 255 of this title on the day before October 8, 2010. Such services and equipment shall remain subject to the requirements of section 255 of this title.").

providers of advanced communications services (ACS) and manufacturers of equipment used for ACS make their services and products accessible to people with disabilities, unless it is not achievable to do so. These mandates already apply according to their terms in the context of broadband Internet access service.[1428] The CVAA also adopted a requirement, in section 718, that ensures access to Internet browsers in wireless phones for people who are blind and visually impaired.[1429] In addition, the CVAA directs the Commission to enact regulations to prescribe, among other things, that networks used to provide ACS "may not impair or impede the accessibility of information content when accessibility has been incorporated into that content for transmission through . . . networks used to provide [ACS]."[1430] Finally, new section 717 creates new enforcement and recordkeeping requirements applicable to sections 255, 716, and 718.[1431] Thus, a variety of accessibility requirements already have applied in the context of broadband Internet access service under the CVAA.

474. We are persuaded by the record of concerns about accessibility in the context of broadband Internet access service that we should not rest solely on the protections of the CVAA, however. But we do clarify the interplay of those provisions. At the time of section 255's adoption in the 1996 Act, Congress stated its intent to "foster the design, development, and inclusion of new features in communications technologies that permit more ready accessibility of communications technology by individuals with disabilities . . . as preparation for the future given that a growing number of Americans have disabilities."[1432] More recently, Congress adopted the CVAA after recognizing that since it added section 255 to the Communications Act, "Internet-based and digital technologies . . . driven by growth in broadband . . . are now pervasive, offering innovative and exciting ways to communicate and share information."[1433] Congress thus clearly had Internet-based communications technologies in mind when enacting the accessibility provisions of sections section 716 (as well as the related provisions of sections 717-718), and in providing important protections with respect to ACS. Thus, insofar as there is any conflict between the requirements of sections 255, 251(a)(2), and our implementing rules, on the one hand, and sections 716-718 and our implementing rules on the other hand, we interpret the latter requirements as controlling.[1434] On the other hand, insofar as sections 255, 251(a)(2), and our implementing rules impose different requirements that are reconcilable with the CVAA, we find it appropriate to apply those additional protections in the context of broadband Internet access service for

[1428] *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al*., CG Docket No. 10-213 *et al*., Second Report and Order, 28 FCC Rcd 5957, 5960-61, para. 7 (2013).

[1429] 47 U.S.C. §§ 617, 619. ACS means: "(A) interconnected VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; and (D) interoperable video conferencing service." 47 U.S.C. § 153(1).

[1430] 47 U.S.C. § 617(e)(1)(B); *see also* 47 C.F.R. § 14.20(c).

[1431] 47 U.S.C. § 618.

[1432] S. Rep. No. 104-23 at 52 (1996) (discussing what ultimately became section 255 of the Act).

[1433] S. Rep. No. 111–386, at 1 (2010); H.R. Rep. No. 111-563, at 19 (2010).

[1434] A general canon of interpretation is that where two statutory provisions conflict, the specific governs the general—but we need not and do not decide the question of whether the provisions enacted by the CVAA are more specific here because we are persuaded by the legislative history of those provisions that, insofar as there is a conflict, the provisions of the CVAA should be controlling in any case. *See, e.g.*, *Ohio Power Co. v. FERC*, 744 F.2d 162, 167-68 & n.7 (D.C. Cir. 1984) (concluding that "assuming arguendo that section 20 and 23 [of the agreement at issue] are in conflict, it remains unclear which section provides the more specific command," and ultimately finding FERC's "examination of the apparently contradicting sections thorough and its interpretation reconciling their terms entirely reasonable").

the reasons described above.[1435] Thus, for example, outside the self-described scope of the CVAA, providers of broadband Internet access services must ensure that network services and equipment do not impair or impede accessibility pursuant to the sections 255/251(a)(2) framework.[1436] In particular, we find that these provisions and regulations are necessary for the protection of consumers and forbearance would not be in the public interest.[1437]

475. We reject the cursory or generalized arguments of some commenters that we need not apply these protections, or that we might defer doing so, pending further proceedings. For the reasons discussed above, with respect to broadband Internet access service the record here persuades us that the application of these requirements is necessary for the protection of consumers under section 10(a)(2) and that forbearance is not in the public interest under section 10(a)(3). Nor are we otherwise persuaded to stay or waive our implementing rules based on this record. Commenters opposing the application of these protections with respect to broadband Internet access service either with no limit on time, or specifically in the near term, make general arguments about the associated burdens. However, they do not include a meaningful analysis of why the section 10(a) criteria are met (or why relief otherwise should be granted)

[1435] *See, e.g.*, *Detweiler v. Pena*, 38 F.3d 591, 594 (D.C. Cir. 1994) ("'[W]hen two statutes are capable of co-existence, it is the duty of the courts, absent a clearly expressed congressional intention to the contrary, to regard each as effective.'") (quoting *Morton v. Mancari*, 417 U.S. 535, 551 (1974)) (alteration in original). We recognize that the Commission previously has held that "[s]ection 2(a) of the CVAA exempts entities, such as Internet service providers, from liability for violations of Section 716 when they are acting only to transmit covered services or to provide an information location tool. Thus, service providers that merely provide access to an electronic messaging service, such as a broadband platform that provides an end user with access to a web-based e-mail service, are excluded from the accessibility requirements of Section 716." *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al*., CG Docket No. 10-213 *et al*., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557, 14576, para. 45 (2011). Our decision here is not at odds with Congress' approach to such services under the CVAA, however, because we also have found that "relative to Section 255, Section 716 requires a higher standard of achievement for covered entities." *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al*., CG Docket No. 10-213 *et al*., Notice of Proposed Rulemaking, 26 FCC Rcd 3133, 3136-37, para. 5 (2011). Thus, under our decision here, broadband Internet access service will remain excluded from the "higher standard of achievement" required by the CVAA to the extent provided by that law, and instead will be subject to the lower standard imposed under section 255 in those cases where the CVAA does not apply.

[1436] *See* 47 C.F.R. § 6.9. Because this section requires pass through of telecommunications in an accessible format, and 47 C.F.R. § 14.20(c) requires pass through of ACS in an accessible format, the two sections work in tandem with each other, and forbearance from sections 255 and 251(a)(2) would therefore result in a diminution of accessibility.

[1437] We recognize that section 716 provides that "[t]he requirements of this section shall not apply to any equipment or services, including interconnected VoIP service, that are subject to the requirements of section 255 of this title on the day before October 8, 2010. Such services and equipment shall remain subject to the requirements of section 255 of this title." 47 U.S.C. § 617(f). We do not read that as requiring that section 716 must necessarily be mutually exclusive with section 255, however. Had Congress wished to achieve that result, it easily instead could have stated that "the requirements of this section shall not apply to any equipment or services . . . that are subject to the requirements of section 255" (or vice versa) and left it at that. By also including the limiting language "that are subject to the requirements of section 255 of this title *on the day before October 8, 2010*," we believe the statute reasonably is interpreted as leaving open the option that services that become subject to section 255 thereafter also could be subject to both the requirements of section 255 and the requirements of the CVAA. Indeed, although broadband Internet access previously was classified as an information service and thus not subject to section 255 on October 8, 2010, at the time the CVAA was enacted the Commission had initiated the *2010 NOI* to consider whether to reclassify that service as a telecommunications service, which would, at that time, become subject to section 255 as a default matter.

nor why the concerns they identify—even assuming *arguendo* that they were borne out by evidence beyond that currently in the record—should outweigh the disability access concerns identified here.[1438]

476. We also reject arguments that section 706 itself provides adequate protections such that forbearance from the disability access provisions of sections 225, 255 and 251(a)(2) and associated regulations is warranted.[1439] While section 706 of the 1996 Act would continue to apply even if we granted forbearance here, consistent with our conclusions in other sections, we find that these disability access provisions provide a more certain foundation for evaluating providers' conduct and pursuing enforcement if warranted in relevant circumstances arising in the future.[1440] Among other things, while our interest in ensuring disability access often may have a nexus with the standards of sections 706(a) and (b), the record does not reveal that the public interest in ensuring access for persons with disabilities is limited just to the universe of concerns encompassed by section 706.

477. In addition to the provisions discussed above, section 710 of the Act addresses hearing aid compatibility.[1441] Given the important additional protections for persons with disabilities enabled by this provision,[1442] we anticipate addressing the applicability of mobile wireless hearing aid compatibility requirements to mobile broadband Internet access service devices in the pending rulemaking proceeding.[1443]

[1438] *See, e.g.*, MediaFreedom Comments at 2; TIA Comments at 17. *See also, e.g.*, Letter from COMPTEL, CCIA, Engine and IFBA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1-2 n.1 (filed Dec. 30, 2014) (noting the possibility of deferral). Some commenters contend that the Commission should forbear from all of Title II based on generalized arguments about the marketplace, such as past network investment or changes in performance or price per megabit in the recent past. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 10-11; Comcast Dec. 24, 2014 *Ex Parte* Letter at 4-6; NCTA Dec. 23, 2014 *Ex Parte* Letter at 19-20. We are not persuaded that those arguments justify a different outcome as to any of the disability access provisions or requirements at issue in this section, both for the reasons discussed previously, *see supra* Section V.B.1, and because commenters do not meaningfully explain how these arguments impact the section 10 analysis here, given that the need to protect disability access is not self-evidently linked to such marketplace considerations. Nothing in the record suggests that concerns about disability access are limited to broadband providers of a particular size, and we thus are not persuaded that a different conclusion in our forbearance analysis should be reached in the case of small broadband providers, for example. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; AireBeam Jan. 30, 2015 *Ex Parte* Letter at 2.

[1439] *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; NCTA Jan. 14, 2015 *Ex Parte* Letter at 3-4.

[1440] *See, e.g.*, *supra* Section III.F.4. We also note, for example, that this approach obviates the need to determine whether or to what extent these disability access provisions are more specific than section 706 of the 1996 Act in relevant respects, and thus could be seen as exclusively governing over the provisions of section 706 of the 1996 Act as to some set of disability access issues. *Cf. Bloate v. U.S.*, 559 U.S. 196, 208 (2010) ("'[g]eneral language of a statutory provision, although broad enough to include it, will not be held to apply to a matter specifically dealt with in another part of the same enactment'") (citation omitted). The approach we take avoids this potential uncertainty, and we thus need not and do not address this question.

[1441] *See generally* 47 U.S.C. § 610.

[1442] For reasons similar to those discussed in the text above regarding other disability access provisions, we do not find it in the public interest to grant forbearance from section 710 of the Act, nor do we find such forbearance otherwise warranted under the section 10(a) criteria. 47 U.S.C. § 160(a).

[1443] *See, e.g.*, *Request For Updated Information and Comment On Wireless Hearing Aid Compatibility Regulations*, WT Docket Nos. 07-250, 10-254, Public Notice, 29 FCC Rcd 13969 (Wireless Telecom. Bureau, Consumer & Gov't Affairs Bureau 2014) (discussing pending proceeding and seeking updated comment). We note that the Commission's existing implementing rules do not immediately impose the Commission's hearing aid compatibility requirements implementing section 710 of the Act on mobile wireless broadband providers by virtue of the classification decisions in this Order. We note, however, that certain obligations in the Commission's rules

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c. Access to Poles, Ducts, Conduit and Rights-of-Way (Section 224)

478. Consistent with the recommendations of certain broadband provider commenters, because we find that the section 10(a) criteria are not met, we decline to forbear from applying section 224 and the Commission's associated rules with respect to broadband Internet access service.[1444] Section 224 of the Act governs the Commission's regulation of pole attachments. The Commission has recognized repeatedly the importance of pole attachments to the deployment of communications networks, and we thus conclude that applying these provisions will help ensure just and reasonable rates for broadband Internet access service by continuing pole access and thereby limiting the input costs that broadband providers otherwise would need to incur.[1445] Leveling the pole attachment playing field for new entrants that offer solely broadband services also removes barriers to deployment and fosters additional broadband competition.[1446] For similar reasons we find that applying these provisions will protect consumers and advance the public interest under sections 10(a)(2) and (a)(3).[1447]

479. Further, in significant part, section 224 imposes obligations on utilities, as owners of poles, ducts, conduits, or rights-of-way, to ensure that cable operators and telecommunications carriers obtain access to poles on just, reasonable, and nondiscriminatory rates, terms and conditions.[1448] The definition of a utility, however, includes entities other than telecommunications carriers,[1449] and pole

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implementing section 255 addressing interference with hearing technologies and the effective wireless coupling to hearing aids, *see e.g.*, 47 C.F.R. §§ 6.3(a)(2)(viii), (ix); 6.5; 7.1(a)(2)(viii), (ix); 7.5, may be appropriately imposed on such providers by virtue of this Order, given our decision not to forbear from application of section 255 and its implementing regulations.

[1444] *See, e.g.*, Comcast Dec. 24, 2014 *Ex Parte* Letter at 25 n.107; NCTA Dec. 23, 2014 *Ex Parte* Letter at 21. *See also, e.g.*, Letter from Marvin Ammori and Julie Samuels, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1 (filed Nov. 12, 2014) ("Title II forbearance should be implemented in such a way so as to encourage continued deployment and investment in networks by for example preserving pole attachment rights."); Letter from Austin C. Schlick, Director, Communications Law, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 3-4 (filed Dec. 30, 2014) (Google Dec. 30, 2014 *Ex Parte* Letter).

[1445] *See, e.g.*, *Implementation of Section 224 of the Act, A National Broadband Plan for Our Future*, WC Docket No. 07-245, GN Docket No. 09-51, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240, 5241-43, paras. 1-6 (2011) (*2011 Pole Attachment Order*). *See also, e.g.*, Google Dec. 30, 2014 *Ex Parte* Letter at 3-4; Vonage Jan. 7, 2015 *Ex Parte* Letter at 1.

[1446] *See, e.g.*, Google Dec. 30, 2014 *Ex Parte* Letter at 3-4; Letter from Stephen E. Coran, Counsel for WISPA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 13-14 (filed Feb. 3, 2015).

[1447] Some commenters contend that the Commission should forbear from all of Title II based on generalized arguments about the marketplace, such as past network investment or changes in performance or price per megabit in the recent past. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 10-11; Comcast Dec. 24, 2014 *Ex Parte* Letter at 4-6; NCTA Dec. 23, 2014 *Ex Parte* Letter at 19-20. We are not persuaded that those arguments justify a different outcome regarding section 224 and our associated rules, both for the reasons discussed previously, *see supra* Section V.B.1, and because commenters do not meaningfully explain how these arguments impact the section 10 analysis here, given that the need for regulated access to access to poles, ducts, conduit, and rights-of-way is not self-evidently linked to such marketplace considerations. Nor does the record reveal that concerns about adequate access to poles, ducts, conduit and rights-of-way are limited to broadband providers of a particular size, and we thus are not persuaded that these concerns would differ in the case of small broadband providers, for example. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; AireBeam Jan. 30, 2015 *Ex Parte* Letter at 2.

[1448] 47 U.S.C. § 224(a)-(e).

[1449] *See* 47 U.S.C. § 224(a)(1) (defining a utility as "any person who is a local exchange carrier or an electric, gas, water, steam, or other public utility, and who owns or controls poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communications. . . . "); *see also* 47 U.S.C. § 224(a)(5) ("For purposes of this section,

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attachments themselves are not "telecommunications services." Section 10 allows the Commission to forbear from statutory requirements and implementing regulations as applied to "a telecommunications carrier or telecommunications service," or class thereof, if the statutory criteria are satisfied.[1450] To the extent that section 224 imposes obligations on entities other than telecommunications carriers, it is not within the Commission's authority to forbear from this provision and our implementing rules under section 10.

480. Moreover, even if the Commission could forbear from the entirety of section 224 notwithstanding the concerns with such forbearance noted above, it is doubtful that this approach would leave us with authority to regulate the rates for attachments used for broadband Internet access service. In particular, such forbearance seemingly would eliminate any requirements governing pole owners' rates for access to poles by telecommunications carriers or cable operators. Such an outcome would not serve the public interest.

481. We also are not persuaded that we could forbear exclusively from the telecom rate formula in section 224(e), and then adopt a lower rate—such as the cable rate—pursuant to section 224(b). In particular, applying the 'specific governs the general' canon of statutory interpretation, the Supreme Court interpreted the rate formulas in sections 224(d) and (e) as controlling, within their self-described scope, over the Commission's general authority to ensure just and reasonable rates for pole attachments under section 224(b).[1451] We question whether forbearing from applying section 224(e) would actually alter the scope of our authority under section 224(b), or if instead rates for carriers' telecommunications service attachments would remain governed by the (now forborne-from) section 224(e), leaving a void as to regulation of rates for such attachments. Further, attempting to use an approach like this to regulate pole rental rates more stringently to achieve lower rates, the Commission seemingly would be using forbearance to *increase* regulation. Given the deregulatory purposes underlying the adoption of section 10, we do not believe that the use of forbearance in that manner would be in the public interest.[1452]

482. Although we are not persuaded that forbearance would be appropriate to address these concerns, we are committed to avoiding an outcome in which entities misinterpret today's decision as an excuse to increase pole attachment rates of cable operators providing broadband Internet access service.[1453] To be clear, it is not the Commission's intent to see any increase in the rates for pole

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the term 'telecommunications carrier' (as defined in section 153 of this title) does not include any incumbent local exchange carrier as defined in section 251(h) of this title.").

[1450] 47 U.S.C. § 160(a) ("[T]he Commission shall forbear from applying any regulation or any provision of this chapter to a telecommunications carrier or telecommunications service . . . .").

[1451] *NCTA v. Gulf Power*, 534 U.S. 327, 335-36 (2002).

[1452] *See, e.g.*, *United States Telecom Association Petition For Forbearance Under 47 U.S.C. § 160(c) From Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, Order, 28 FCC Rcd 2605, 2608, para. 3 (2013).

[1453] *See, e.g.*, Letter from Thomas Cohen and Edward A. Yorkgitis, Jr., Counsel for ACA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 2-3 (filed Jan. 20, 2015) (ACA Jan. 20, 2015 *Ex Parte* Letter); NCTA Dec. 23, 2014 *Ex Parte* Letter at 21 n.107. By virtue of the 1996 Act revisions, section 224 of the Act now sets forth two separate formulas to determine the maximum rates for pole attachments—one applies to pole attachments used by providers of telecommunications services (the telecom rate formula), and the other to pole attachments used "solely to provide cable service" (the cable rate formula). 47 U.S.C. §§ 224(d), (e). In recognition of these differences, Congress provided that rates under the telecom rate formula would be phased in over a five-year period, 47 U.S.C. § 224(e)(4), although the Commission has sought to minimize the disparity in rates. *See generally 2011 Pole Attachment Order*. To the extent that commenters express concern about possible rate changes following our reclassification of broadband Internet access under that statutory and regulatory framework, *see* ACA Jan. 20, 2015

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attachments paid by cable operators that also provide broadband Internet access service, and we caution utilities against relying on this decision to that end. This Order does not itself require any party to increase the pole attachment rates it charges attachers providing broadband Internet access service, and we would consider such outcomes unacceptable as a policy matter.

483. We note in this regard that in the *2011 Pole Attachment Order*, the Commission undertook comprehensive reform of pole attachment rules—including by revising the telecommunications rate formula for pole attachments in a way that "generally will recover the same portion of pole costs as the current cable rate."[1454] As NCTA, COMPTEL and tw telecom observed following that *Order*, the Commission's "expressed intent of providing rate parity between telecommunications providers and cable operators by amending the telecommunications formula to produce rates comparable to the cable formula—thereby removing the threat of potential rate increases associated with new services and reducing the incentives for pole owners to dispute the legal classification of communications services—will provide much-needed regulatory certainty that will permit broadband providers to extend their networks to unserved communities while fairly compensating pole owners."[1455] However, these parties also expressed concern that the particular illustration used by the Commission in the rule text could be construed as suggesting that the new formula includes only instances where there are three and five attaching entities, rather than providing the "corresponding cost adjustments scaled to other entity counts."[1456] We are concerned by any potential undermining of the gains the Commission achieved by revising the pole attachment rates paid by telecommunications carriers. We accordingly will be monitoring marketplace developments following this Order and can and will promptly take further action in that regard if warranted.

484. To the extent that there is a potential for an increase in pole attachment rates for cable operators that also provide broadband Internet access service, we are highly concerned about its effect on the positive investment incentives that arise from new providers' access to pole infrastructure. We are encouraged by entry into the marketplace of parties that offer broadband Internet access service, and we believe that providing these new parties with access to pole infrastructure under section 224 would outweigh any hypothetical rise in pole attachment rates for some incumbent cable operators in some circumstances[1457] —particularly in light of our expressed intent to take prompt action if necessary to address the application of the Commission's pole rental rate formulas in a way that removes any doubt concerning the advancement of the goals intended by our 2011 reforms. Moreover, subsumed within our finding that today's decision does not justify any increase in pole attachment rates is an emphatic conclusion that no utility could impose any increase retroactively.[1458]

485. We also reject arguments that section 706 itself provides adequate protections such that

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Ex Parte Letter at 2-3; NCTA Dec. 23, 2014 *Ex Parte* Letter at 21 n.107, we are not persuaded on this record that forbearance would be a viable way to address them, for the reasons discussed below. Nor do such arguments persuade us not to reclassify broadband Internet access service, since in reclassifying that service we simply acknowledge the reality of how it is being offered today. *See supra* Section IV.

[1454] *2011 Pole Attachment Order*, 26 FCC Rcd at 5244, para. 8.

[1455] *Petition for Reconsideration or Clarification of the National Cable & Telecommunications Association, COMPTEL and tw telecom Inc*., WC Docket No. 07-245, GN Docket No. 09-51 at 2 (filed June 8, 2011), http://apps.fcc.gov/ecfs/document/view?id=7021686399.

[1456] *Id.* at 6.

[1457] *See, e.g.*, Google Dec. 30, 2014 *Ex Parte* Letter at 2-4.

[1458] Letter from Samuel L. Feder, Counsel to Charter, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, 07-245 (filed Feb. 18, 2015).

forbearance from the pole access provisions of section 224 and related regulations is warranted.[1459] While section 706 of the 1996 Act would continue to apply even if we granted forbearance here, consistent with our conclusions in other sections, we find that section 224 and our implementing regulations provide a more certain foundation for evaluating providers' conduct and pursuing enforcement if warranted in relevant circumstances arising in the future.[1460]

d. Universal Service Provisions (Sections 254, 214(e))

486. We find the statutory test is met to grant certain forbearance under section 10(a) from applying sections 254(d), (g), and (k), as discussed below, but we otherwise will apply section 254, section 214(e) and our implementing rules with respect to broadband Internet access service, as recommended by a number of commenters.[1461] Section 254, the statutory foundation of our universal service programs, requires the Commission to promote universal service goals, including "[a]ccess to advanced telecommunications and information services . . . in all regions of the Nation."[1462] Section 214(e) provides the framework for determining which carriers are eligible to participate in universal service programs.[1463] Even prior to the classification of broadband Internet access service adopted here, the Commission already supported broadband services to schools, libraries, and health care providers and supported broadband-capable networks in high-cost areas.[1464] Broadband Internet access service was, and is, a key focus of those universal service policies, and classification today simply provides another statutory justification in support of these policies going forward. Under our broader section 10(a)(3) public interest analysis, the historical focus of our universal service policies on advancing end-users' access to broadband Internet access service persuades us to give much less weight to arguments that we should proceed incrementally in this context. In particular, the Commission already has provided support for deployment of broadband-capable networks and imposed associated public interest obligations requiring the provision of broadband Internet access service. In connection with the Lifeline program, for instance, the Commission has established the goal of "ensuring the availability of broadband service for low-income Americans."[1465] We therefore conclude that these universal service policy-making provisions

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[1459] *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; NCTA Jan. 14, 2015 *Ex Parte* Letter at 3-4.

[1460] *See, e.g.*, *supra* Section III.F.4. We also note, for example, that this approach obviates the need to determine whether or to what extent section 224's pole access provisions are more specific than section 706 of the 1996 Act in relevant respects, and thus could be seen as exclusively governing over the provisions of section 706 of the 1996 Act as to some set of pole access issues. *Cf. Bloate v. U.S.*, 559 U.S. 196, 208 (2010) ("'[g]eneral language of a statutory provision, although broad enough to include it, will not be held to apply to a matter specifically dealt with in another part of the same enactment'") (citation omitted). The approach we take avoids this potential uncertainty, and we thus need not and do not address this question.

[1461] *See, e.g.*, NMR Comments at 25-26; Public Knowledge et al. Comments at 95; Rural Broadband Policy Group Comments at 8-9; Telecommunications for the Deaf and Hard of Hearing Comments at 13; Ammori Dec. 19, 2014 *Ex Parte* Letter at 5.

[1462] 47 U.S.C. § 254(b)(2).

[1463] 47 U.S.C. § 214(e). More specifically, an entity must be designated an eligible telecommunications carrier (ETC) under section 214(e) in order to get high-cost or Lifeline support, but the same constraint does not apply with respect to receipt of support under the E-rate or Rural Health Care programs. *See* 47 C.F.R. § 54.201(a).

[1464] *See, e.g.*, *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8895-95, paras. 67-75 (2014); *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, 27 FCC Rcd 16678, 16700-01, 16704, 16715, paras. 49, 59, 79-80 (2012); *USF/ICC Transformation Order*, 26 FCC Rcd at 17683-91, paras. 60-73.

[1465] *Lifeline and Link Up Reform and Modernization; Lifeline and Linkup; Federal-State Joint Board on Universal Service; Advancing Broadband Availability Through Digital Literacy Training*, WC Docket Nos. 12-23, 11-42, 03-

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of section 254, and the interrelated requirements of section 214(e), give us greater flexibility in pursuing those policies, and outweighs any limited incremental effects (if any) on broadband providers in this context.[1466] Because forbearance would not be in the public interest under section 10(a)(3), we apply these provisions of section 254 and 214(e) and our implementing rules with respect to broadband Internet access service.

487. We also reject arguments that section 706 itself provides adequate protections such that forbearance from the provisions of sections 254 and 214(e) discussed above is warranted.[1467] While section 706 of the 1996 Act would continue to apply even if we granted forbearance here, we find that these provisions provide a more certain foundation for implementing our universal service policies and enforcing our associated rules, consistent with our conclusions in other sections.[1468] Among other things, while our interest in ensuring universal service often may have a nexus with the standards of sections 706(a) and (b), the record does not reveal that the public interest in ensuring universal access is limited just to the universe of concerns encompassed by section 706.

488. Notwithstanding the foregoing, for now we do forbear in part from the first sentence of section 254(d) and our associated rules insofar as they would immediately require new universal service contributions associated with broadband Internet access service. The first sentence of section 254(d) authorizes the Commission to impose universal service contributions requirements on telecommunications carriers—and, indeed, goes even further to require "[e]very telecommunications

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109, CC Docket No. 96-45, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, 6673, para. 33 (2012).

[1466] We note that commenters opposing the application of section 254 as a whole (or those provisions of section 254 from which we do not forbear below) or arguing that such action could be deferred pending future proceedings, appear to make only generalized, non-specific arguments, which we do not find sufficient to overcome our analysis above. *See, e.g.*, TIA Comments at 17; ADTRAN Reply at 17-18. *See also, e.g.*, Letter from COMPTEL, CCIA, Engine and IFBA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1-2 n.1 (filed Dec. 30, 2014) (noting the possibility of deferral). In addition, some commenters contend that the Commission should forbear from all of Title II based on generalized arguments about the marketplace, such as past network investment or changes in performance or price per megabit in the recent past. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 10-11; Comcast Dec. 24, 2014 *Ex Parte* Letter at 4-6; NCTA Dec. 23, 2014 *Ex Parte* Letter at 19-20. We are not persuaded that those arguments justify a different outcome regarding section 254, both for the reasons discussed previously, *see supra* Section V.B.1, and because commenters do not meaningfully explain how these arguments impact the section 10 analysis here, given that, even taken at face value, arguments based on such marketplace considerations do not purport to sufficiently address the policy concerns underlying section 254 and our universal service programs. Nothing in the record suggests that we should tailor our advancement of universal service policies to broadband providers of a particular size, and we thus are not persuaded that a different conclusion in our forbearance analysis should be reached in the case of small broadband providers, for example. *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; AireBeam Jan. 30, 2015 *Ex Parte* Letter at 2.

[1467] *See, e.g.*, ACA Jan. 12, 2015 *Ex Parte* Letter at 11; NCTA Jan. 14, 2015 *Ex Parte* Letter at 3-4.

[1468] *See, e.g.*, *supra* Section III.F.4. *See also, e.g.*, *Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4579, para. 67 (2011) (seeking comment on whether a universal service mechanism based exclusively on section 706 of the 1996 Act would raise issues under federal appropriations laws). We also note, for example, that this approach obviates the need to determine whether or to what extent these universal service provisions are more specific than section 706 of the 1996 Act in relevant respects, and thus could be seen as exclusively governing over the provisions of section 706 of the 1996 Act as to some set of universal issues. *Cf. Bloate v. U.S.*, 559 U.S. 196, 208 (2010) ("'[g]eneral language of a statutory provision, although broad enough to include it, will not be held to apply to a matter specifically dealt with in another part of the same enactment'") (citation omitted). The approach we take avoids this potential uncertainty, and we thus need not and do not address this question.

carrier that provides interstate telecommunications services" to contribute.[1469] Under that provision and our implementing rules, providers are required to make federal universal service support contributions for interstate telecommunications services, which now would include broadband Internet access service by virtue of the classification decision in this order.[1470]

489. Consistent with our analysis of TRS contributions above, we note that on one hand, newly applying universal service contribution requirements on broadband Internet access service potentially could spread the base of contributions to the universal service fund, providing at least some benefit to customers of other services that contribute, and potentially also to the stability of the universal service fund through the broadening of the contribution base. We note, however, that the Commission has sought comment on a wide range of issues regarding how contributions should be assessed, including whether to continue to assess contributions based on revenues or to adopt alternative methodologies for determining contribution obligations.[1471] We therefore conclude that limited forbearance is warranted at the present time in order to allow the Commission to consider the issues presented based on a full record in that docket.[1472]

490. As reiterated in our discussion of TRS contributions above, courts have recognized when exercising its section 10 forbearance authority "[g]uided by section 706," the Commission permissibly may "decide[] to balance the future benefits" of encouraging broadband deployment "against [the] short term impact" from a grant of forbearance.[1473] Our decision, guided by section 706, to tailor the regulations applied to broadband Internet access service thus tips the balance in favor of the finding that applying new universal service fund contribution requirements at this time is not necessary to ensure just

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[1469] 47 U.S.C. § 254(d) ("Every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."). In implementing that statutory provision, the Commission concluded that federal contributions would be based on end-user telecommunications revenues. 47 C.F.R. § 54.706(c).

[1470] *Id.*; 47 C.F.R. §§ 54.706-54.713.

[1471] *Universal Service Contribution Methodology; A National Broadband Plan For Our Future*, WC Docket No. 06-122, GN Docket No. 09-51, Further Notice of Proposed Rulemaking, 27 FCC Rcd 5357 (2012). Moreover, the Commission has referred the question of how the Commission should modify the universal service contribution methodology to the Federal-State Joint Board on Universal Service (Joint Board) and requested a recommended decision by April 7, 2015. *Federal State Joint Board on Universal Service; Universal Service Contribution Methodology; A National Broadband Plan For Our Future*, WC Docket Nos. 96-45, 06-122, GN Docket No. 09-51, Order, 29 FCC Rcd 9784 (2014). We recognize that a short extension of that deadline for the Joint Board to make its recommendation to the Commission may be necessary in light of the action we take today. Our action in this Order thus will not "short circuit" the rulemaking concerning contributions issues as some commenters fear. NTCA Jan. 8, 2015 *Ex Parte* Letter at 2; *see also, e.g.*, Letter from Andrew M. Brown, Counsel, Ad Hoc, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3 (filed Jan. 30, 2015).

[1472] As noted below, we do not forbear from the mandatory obligation of carriers that have chosen voluntarily to offer broadband as a Title II service to contribute to the federal universal service fund. Because we do nothing today to disturb the status quo with respect to current contributions obligations for the reasons explained above, and there will be a future opportunity to consider these issues in the contributions docket, we find that certain arguments raised in the record today are better taken up in that proceeding. *See, e.g.*, Letter from Michael R. Romano, Senior Vice President—Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3 (filed Jan. 8, 2015) (NTCA Jan. 8, 2015 *Ex Parte* Letter); Letter from Michael R. Romano, Senior Vice President—Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3 (filed Jan. 13, 2015) (NTCA Jan. 13, 2015 *Ex Parte* Letter);COMPTEL Comments at 22-23.

[1473] *EarthLink*, 462 F.3d at 9.

and reasonable rates and practices or for the protection of consumers under sections 10(a)(1) and (a)(2), and that forbearance is in the public interest under section 10(a)(3) while the Commission completes its pending rulemaking regarding contributions reform.[1474] The competing considerations here make this a closer call under our section 10(a) analysis, however, and thus as in the TRS contribution context, we limit our action only to forbearing from applying the first sentence of section 254(d) and our implementing rules insofar as they would immediately require new universal service contributions for broadband Internet access services sold to end users but not insofar as they authorize the Commission to require such contributions in a rulemaking in the future.[1475] Thus, while broadband Internet access services will not be subject to new universal service contributions at this time,[1476] our action today is not intended to prejudge or limit how the Commission may proceed in the future.[1477]

491. Nothing in our forbearance with respect to the first sentence of section 254(d) for broadband Internet access service is intended to encompass, however, situations where incumbent local exchange carriers or other common carriers voluntarily choose to offer Internet transmission services as telecommunications services subject to the full scope of Title II requirements for such services. As a result, such providers remain subject to the mandatory contribution obligations that arise under section 254(d) and the Commission's rules by virtue of their elective provision of such services until such time as the Commission further addresses contributions reform in the pending proceeding.

492. We also forbear from applying sections 254(g) and (k) and our associated rules. Section 254(g) requires "that the rates charged by providers of interexchange telecommunications services to subscribers in rural and high cost areas shall be no higher than the rates charged by each such provider to its subscribers in urban areas."[1478] Section 254(k) prohibits the use of revenues from a non-competitive

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[1474] While some commenters cite regulatory parity as a reason not to forbear from universal service contribution requirements, they do not explain how such concerns are implicated insofar as every provider's broadband Internet access service is subject to this same forbearance from universal service contribution requirements. *See, e.g.*, COMPTEL Comments at 22-23. In any event, those arguments are better addressed in the contributions rulemaking docket based on the full record developed therein.

[1475] *See supra* para.470. *See also infra* paras.495-496; Section V.C.2.a.

[1476] While a recent court case, seemingly in dicta, suggested that forbearance is informal rulemaking, the Commission has not expressly resolved that question. *Compare Verizon v. FCC*, 770 F.3d 961, 966-67 (D.C. Cir. 2014) *with, e.g.*, *Petition To Establish Procedural Requirements To Govern Proceedings For Forbearance Under Section 10 Of The Communications Act Of 1934, As Amended*, WC Docket No. 07-267, Report and Order, 24 FCC Rcd 9543, 9554, para. 19 n.72, para. 20 (2009). We need not and do not address that broader question here because in this case the Commission has, in fact, proceeded via rulemaking.

[1477] Because our action today precludes for the time being federal universal service contribution assessments on broadband Internet access services that are not currently assessed, we conclude that any state requirements to contribute to state universal service support mechanisms that might be imposed on such broadband Internet access services would be inconsistent with federal policy and therefore are preempted by section 254(f)—at least until such time that the Commission rules on whether to require federal universal service contributions by providers of broadband Internet access service. 47 U.S.C. § 254(f) ("A State may adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service."). We note that we are not aware of any current state contribution obligation for broadband Internet access service; our understanding is that broadband providers that voluntarily offer Internet transmission as a Title II service treat 100 percent of those revenues as interstate. We recognize that section 254 expressly contemplates that states will take action to preserve and advance universal service, and our actions in this regard will benefit from further deliberation. *See* 47 U.S.C. §§ 254(b)(5), 254(f); Letter from James Ramsey, General Counsel, NARUC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1-2 (filed Jan. 30, 2015).

[1478] 47 U.S.C. § 254(g).

service to subsidize a service that is subject to competition.[1479] Commenters' arguments to apply provisions of section 254 appear focused on the provisions dealt with above—i.e., provisions providing for support of broadband networks or services or addressing universal service contributions—and do not appear to focus at all on why we should not forbear from applying the requirements of sections 254(g) and (k) and our implementing rules. In particular, consistent with the more detailed discussion in our analysis below, we are not persuaded that applying these provisions is necessary for purposes of sections 10(a)(1) and (a)(2), particularly given the availability of the core broadband Internet access service requirements.[1480] Likewise, under the tailored regulatory approach we find warranted here, informed by our responsibilities under section 706, we conclude that forbearance from enforcing sections 254(g) and (k) is in the public interest under section 10(a)(3).[1481] We thus forbear from applying these provisions insofar as they would be newly triggered by the classification of broadband Internet access service in this Order. Nothing in our forbearance with respect to section 254(k) for broadband Internet access service is intended to encompass, however, situations where incumbent local exchange carriers or other common carriers voluntarily choose to offer Internet transmission services as telecommunications services subject to the full scope of Title II requirements such services. As a result, such providers remain subject to the obligations that arise under section 254(k) and the Commission's rules by virtue of their elective provision of such services.[1482]

2. Broad Forbearance From 27 Title II Provisions For Broadband Internet Access Service

493. Beyond those core broadband Internet access service requirements we grant extensive forbearance as permitted by our authority under section 10 of the Act based on our predictive judgment regarding the adequacy of other protections where needed, coupled with the role of section 706 of the 1996 Act and our desire to tailor the requirements that should apply here, likewise persuade us that this forbearance is in the public interest. The analyses and forbearance decisions regarding broadband Internet access service reflect the broad support in the record for expansive forbearance.[1483] With respect

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[1479] 47 U.S.C. § 254(k).

[1480] *See infra* paras. 495-496; Section V.C.2.a.

[1481] *See infra* paras. 495-496; Section V.C.2.a.

[1482] *See, e.g.*, *Wireline Broadband Classification Order*, 20 FCC Rcd at 14927-29, paras. 139-44 (discussing the application of section 254(k) and related cost-allocation rules). For example, if a rate-of-return incumbent LEC (or other provider) voluntarily offers Internet transmission outside the forbearance framework adopted in this Order, it remains subject to the pre-existing Title II rights and obligations, including those from which we forbear in this Order.

[1483] *See, e.g.*, AARP Comments at 42 ("Other than Sections 201, 202, and 208, the Commission should forbear from other Title II provisions as it reclassifies. The reclassification will resolve the problems identified by the D.C. Circuit, and allow the Commission to reestablish certainty regarding edge providers' ability to access their users and customers, and consumers' ability to access the legal content and services of their choice."); Consumer Watchdog Comments at 5 ("Because the Communications Act was approved before the existence of the Internet, some provisions of Title II are no longer applicable. The Commission can easily 'forbear' from implementing those provisions that are no longer relevant."); Consumers Union Comments at 11 ("The Commission can narrowly target this framework to best suit the particular needs of broadband service using its forbearance power under Section 10 of the Communications Act. . . . [It thus can] maintain[] a light regulatory touch appropriate for broadband."); EFF Comments at 16-17 ("[R]ules regarding such things as 'tariff filing, price regulation, and other features of monopoly telephone regulation could be taken off the table from the start. Ultimately, the end result would most likely be 'Title II light,' not the burdensome regulatory structure carriers decry.'"); WGAW Comments at 31 ("In the case of broadband Internet access providers, the Commission need not impose the whole gamut of Title II authority. Instead, it can employ a light regulatory touch by tailoring rules under Title II to the specific characteristics of Internet distribution."); Sidecar Technologies Reply at 6 ("[T]he FCC should not assert outdated, unneeded

(continued….)

to proposals to retain particular statutory provisions or requirements, we are not persuaded by the record here that forbearance is not justified for the reasons discussed below.

494. As a threshold matter, we reject arguments from certain commenters that include bare assertions that we should not forbear as to particular provisions or regulations without any meaningful supporting analysis or discussion under the section 10(a) framework.[1484] To the extent that these commenters argue for a narrower result than the forbearance we grant here, such conclusory arguments do not undercut our finding that the section 10(a) criteria are met as to the forbearance granted here with respect to broadband Internet access service. For similar reasons we reject arguments that the Commission should "exempt from forbearance… Section 228… provid[ing] customers with protections from abusive practices by pay-per-call service providers" insofar as they do not explain how such a provision meaningfully would apply in the context of broadband Internet access service or why the section 10(a) criteria are not met in that context.[1485] As a result, these arguments do not call into question our section 10(a) findings below in the context of the broadband Internet access service. With respect to proposals to retain other statutory provisions, we conclude that commenters fail to demonstrate at this time that other, applicable requirements or protections are inadequate, for the reasons discussed below.

495. For each of the remaining statutory and regulatory obligations triggered by our classification decision, the realities of the near-term past under the prior "information service" classification inform our section 10(a) analysis. Although that practical baseline is not itself dispositive of the appropriate regulatory treatment of broadband Internet access service, the record reveals numerous concerns about the burdens—or, at a minimum, regulatory uncertainty—that would be fostered by a

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authorities found in Title II and should immediately forbear from much of Title II of the Act. Specifically, we encourage the FCC not to forbear from sections 201, 202, and 208 . . . . "); Vonage Reply at 32 ("Rather than debate each individual section of Title II in its forbearance analysis, the Commission could limit its Title II authority to those provisions necessary to adopt and enforce Open Internet rules and forbear from applying all other provisions and rules under Title II that do not bear on the Open Internet rules originally codified in 2010"); Letter from Markham C. Erickson, Counsel for Netflix, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 at 1-2 (filed Dec. 5, 2014) ("To generate open Internet rules, the Commission can and should forbear from the vast majority of Title II provisions."); Internet Association Jan. 6, 2015 *Ex Parte* Letter at 2 ("Most of the provisions of Title II, including regulating retail rates, do not appear necessary to further any of these [section 10] goals in the Internet context."); Letter from Barbara van Schewick, Professor of Law and (by courtesy) Electrical Engineering, Stanford Law School, *et al*., to Hon. Tom Wheeler, Chairman, FCC, *et al.*, GN Docket No. 14-28, Attach. at 7 (filed Feb. 2, 2015) ("[W]e would expect and encourage the FCC to regulate with a light touch under Title II through application of its forbearance authority."); Letter from Hon. Catherine Sandoval, Commissioner, California Public Utilities Commission, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. 4 at 17 (filed Feb. 4, 2015) ("[R]ecommend[ing] that the FCC adopt rules to protect and promote the Open Internet consistent with both Section 706 of the Telecommunications Act and Title II of the Communications Act with forbearance and a light regulatory touch.").

[1484] *See, e.g.*, i2 Coalition Comments at 40 (asserting simply that "references to §§ 201, 202, 203, 204, 205, 206, 208, 209, 211, 215, 218, 219, 220, 251 and 252 should be added" to the authority provision of the codified open Internet rules); Tumblr Reply at 9-10 ("We propose, with significant deference to the FCC's expertise in telecommunications law, that the FCC could arguably forbear from all provisions of Title II except for the following fifteen sections: Sections 201, 202, and 208 (guaranteeing net neutrality), 206, 207, 209, and 216 (holding broadband providers accountable for violations), 222 (protecting privacy), 251(a) and 256 (promoting interconnection), and 214(e), 225, 254, 255, and 257 (promoting access to the network). . . . [A] small and limited amount of government regulation is necessary to promote and protect a competitive and lightly regulated marketplace."); Letter from John M. Simpson, Privacy Project Director, Consumer Watchdog, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2 (filed Jan. 26, 2015) (listing a number of statutory provisions and simply noting the title of the provision).

[1485] Rural Broadband Policy Group Comments at 8-9.

sudden, substantial expansion of the actual or potential regulatory requirements and obligations relative to the *status quo* from the near-term past.[1486] It is within the agency's discretion to proceed incrementally,[1487] and we find that adopting an incremental approach here—by virtue of the forbearance granted here—guards against any unanticipated and undesired detrimental effects on broadband deployment that could arise.[1488] We note in this regard that when exercising its section 10 forbearance authority "[g]uided by section 706," the Commission permissibly may "decide[] to balance the future benefits" of encouraging broadband deployment "against [the] short term impact" from a grant of forbearance.[1489] Under the section 10(a) analysis, we are particularly persuaded to give greater weight at this time to the likely benefits of proceeding incrementally given the speculative or otherwise limited nature of the arguments in the current record regarding the possible near-term harms from forbearance of the scope adopted here.[1490]

496. We further conclude that our analytical approach as to all the provisions and regulations from which we forbear in this Order is consistent with section 10(a).[1491] Under section 10(a)(1), we consider here whether particular provisions and regulations are "necessary" to ensure "just and reasonable" conduct by broadband Internet access service providers.[1492] Interpreting those ambiguous

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[1486] *See, e.g.*, CTIA Comments at 47 (citing concerns about "prescriptive rate regulation, tariffing requirements, depreciation mandates, expansive entry and exit regulation, resale and interconnection obligations, a host of reporting requirements"); CenturyLink Comments at 37-40 (identifying various provisions that it contends only make sense as applied to voice service); Charter Comments at 13 (arguing that application of Title II could "creat[e] a prolonged period of legal uncertainty"); Technology Policy Institute Comments at 30 (application of Title II "would signify a sharp departure from the status quo"); WISPA Reply at 23-24 (arguing that particular requirements would be burdensome and that application of Title II potentially could lead to "prolonged uncertainty"). We are not persuaded by arguments that a tailored regulatory approach like that adopted here inherently would be inferior to the adoption of a more regulatory approach in this Order. *See, e.g.*, Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 22-29. Rather, we base our decision to adopt such a tailored approach based both on our own analysis of the overall record regarding investment incentives (which can involve multifaceted considerations), *see supra* Section IV.C.5, and the wisdom we see in exercising our discretion to proceed incrementally, as discussed in greater detail below.

[1487] *See, e.g.*, *Massachusetts v. EPA*, 549 U.S. 497, 524 (2007) ("Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. . . . They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more nuanced understanding of how best to proceed.") (citations omitted). While we believe that the tailored regulatory framework we adopt today strikes the right balance, we note that the D.C. Circuit has recognized the Commission's authority to revisit its decision should that prove not to be the case. *EarthLink*, 462 F.3d at 12. *See also id*. ("'[A]n agency's predictive judgments about areas that are within the agency's field of discretion and expertise are entitled to particularly deferential review, as long as they are reasonable,'" but the agency necessarily must have the ability to "reassess[] the situation if its predictions are not borne out.") (citations omitted).

[1488] *See, e.g.*, *FCC v. Fox Television Stations*, 556 U.S. 502, 522 (2009) ("Nothing prohibits federal agencies from moving in an incremental manner."); *Nat'l Ass'n of Broadcasters v. FCC*, 740 F.2d 1190, 1207 (D.C. Cir. 1984) ("In classifying economic activity, agencies . . . need not deal in one fell swoop with the entire breadth of a novel development; instead, 'reform may take place one step at a time, addressing itself to the phase of the problem which seems most acute to the [regulatory] mind.'") (citation omitted).

[1489] *EarthLink*, 462 F.3d at 9.

[1490] These are discussed in greater detail in the context of the specific provisions or regulations below.

[1491] We thus reject claims to the contrary. *See generally* Pai Dissent at 57-64; O'Rielly Dissent at 14.

[1492] 47 U.S.C. § 160(a)(1).

terms,[1493] we conclude that we reasonably can account for policy trade-offs that can arise under particular regulatory approaches.[1494] For one, we find it reasonable in the broadband Internet access service context for our interpretation and application of section 10(a)(1) to be informed by section 706 of the 1996 Act.[1495] As discussed above,[1496] section 706 of the 1996 Act "explicitly directs the FCC to 'utiliz[e]' forbearance to 'encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans,'"[1497] and our recent negative section 706(b) determination triggers a duty under section 706 for the Commission to "take immediate action to accelerate deployment."[1498] As discussed in greater detail below,[1499] a tailored regulatory approach avoids disincentives for broadband deployment, which we weigh in considering what outcomes are just and reasonable—and whether the forborne-from provisions are necessary to ensure just and reasonable conduct—under our section 10(a)(1) analyses in this item. Furthermore, our forbearance in this Order, informed by recent experience and the record in this proceeding, reflects the recognition that, beyond the specific bright-line rules adopted above,[1500] particular conduct by a broadband Internet access service provider can have mixed consequences, rendering case-by-case evaluation superior to bright-line rules.[1501] Consequently, based on those considerations, it is our predictive judgment that, outside the bright line rules applied under this Order, just and reasonable conduct by broadband providers is better ensured under section10(a)(1) by the case-by-case regulatory approach we adopt—which enables us to account for the countervailing policy implications of given conduct—rather than any of the more bright-line

[1493] *See, e.g.*, *Cellco Partnership v. FCC*, 357 F.3d 88 (D.C. Cir. 2004) (in a decision addressing section 11 of the Act, recognizing that the term "necessary" is ambiguous); *Cellular Telecomms. & Internet Ass'n v. FCC*, 330 F.3d 502, 512-13 (D.C. Cir. 2003) (under *Chevron* step two, deferring to the Commission's reasonable interpretation of the term "necessary" in section 10(a)(2)); *Capital Network System, Inc., v. FCC*, 28 F.3d 201, 204 (D.C. Cir. 1994) (with respect to section 201(b), holding that "[b]ecause 'just,' 'unjust,' 'reasonable,' and 'unreasonable' are ambiguous statutory terms, this court owes substantial deference to the interpretation the Commission accords them").

[1494] While the specific balancing at issue in *EarthLink v. FCC*, 462 F.3d at 8-9, may have involved trade-offs regarding competition, we nonetheless believe the view expressed in that decision accords with our conclusion here that we permissibly can interpret and apply all the section 10(a) criteria to also reflect the competing policy concerns here. As the D.C. Circuit also has observed, within the statutory framework that Congress established, the Commission "possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband." *Ad Hoc Telecommunications Users Committee v. FCC*, 572 F.3d 903, 906-07 (D.C. Cir. 2009).

[1495] Given the characteristics specific to broadband Internet access service that we find on the record here—including, among other things, protections from the newly-adopted open Internet rules and the overlay of section 706—we limit our forbearance from the relevant provisions and regulations to the context of broadband Internet access service. Outside that context, they will continue to apply as they have previously, unaffected by this Order. We thus reject claims that the actions or analysis here effectively treat forborne-from provisions or regulations as surplusage or that we are somehow ignoring significant portions of the Act. *See* Pai Dissent at 61, 64; O'Rielly Dissent at 14-15.

[1496] *See supra* Section V.A.

[1497] *EarthLink v. FCC*, 462 F.3d at 8-9 (alteration in original).

[1498] *2015 Broadband Progress Report* at para. 12.

[1499] *See infra* Section V.C.2.a.

[1500] *See supra* Section III.C.I; *see also supra* Section III.C.3.

[1501] *See generally supra* Sections III.C.2, III.D.2, III.E.

requirements that would have flowed from the provisions and regulations from which we forbear.[1502] These same considerations underlie our section 10(a)(2) analyses, as well, since advancing broadband deployment and ensuring appropriately nuanced evaluations of the consequences of broadband provider conduct better protects consumers.[1503] Likewise, these same policy considerations are central to the conclusion that the forbearance granted in this Order, against the backdrop of the protections that remain, best advance the public interest under section 10(a)(3).[1504]

a. Tariffing (Sections 203, 204)

497. We find the section 10(a) criteria met and forbear from applying section 203 of the Act insofar as it newly applies to providers by virtue of our classification of broadband Internet access service. That provision requires common carriers to file a schedule of rates and charges for interstate common carrier services.[1505] As a threshold matter, we find broad support in the record for expansive forbearance, as discussed above.[1506] Moreover, as advocated by some commenters,[1507] it is our predictive judgment that other protections that remain in place are adequate to guard against unjust and unreasonable and unjustly and unreasonably discriminatory rates and practices in accordance with section 10(a)(1) and to protect consumers under section 10(a)(2). We likewise conclude that those other protections reflect the appropriate calibration of regulation of broadband Internet access service at this time, such that forbearance is in the public interest under section 10(a)(3).

498. As discussed below, sections 201 and 202 of the Act and our open Internet rules are designed to preserve and protect Internet openness, prohibiting unjust and unreasonable and unjustly or unreasonably discriminatory conduct by providers of broadband Internet access service for or in connection with broadband Internet access service and protecting the retail mass market customers of broadband Internet access service.[1508] In particular, under our open Internet rules and the application of sections 201 and 202, we establish both *ex ante* legal requirements and a framework for case-by-case evaluations governing broadband providers' actions. In calibrating the legal framework in that manner, we consider, among other things, the operation of the marketplace in conjunction with open Internet

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[1502] As explained above, we conclude that while competition can be a sufficient basis to grant forbearance, it is not inherently necessary in order to find section 10 satisfied. *See supra* Section V.A. Given our assessment of the advantages of the regulatory framework applied under this Order, we also reject suggestions that, where the Commission does not rely on sufficient competition to justify forbearance, alternative *ex ante* regulations would always be necessary to ensure just and reasonable conduct and otherwise provide a basis for finding the section 10(a) criteria to be met. *See* Pai Dissent at 57-65. Further, while the Final Regulatory Flexibility Analysis estimates a large possible universe of broadband Internet access service providers, we do not find a basis to conclude that they all—or a sufficiently significant number of them—are likely to be simultaneously subject to complaints to render the case-by-case approach unworkable or inferior to additional bright line rules, and thus reject concerns to the contrary. *See* Pai Dissent at 63.

[1503] 47 U.S.C. § 160(a)(2).

[1504] 47 U.S.C. § 160(a)(3).

[1505] 47 U.S.C. § 203.

[1506] *See supra* para. 493. *See also, e.g.*, CDT Feb. 4, 2015 *Ex Parte* Letter at 3 ("There is no need to apply the tariffing requirements in Sections 203 and 204 to broadband service providers . . . .").

[1507] *See, e.g.*, Vonage Reply at 32 ("Other than the lack of meaningful Open Internet protections, the status quo for regulating the provision of broadband internet access remains suitable and need not be disturbed."); AOL July 21, 2014 *Ex Parte* Letter at 2 ("The FCC would have the authority to forbear totally from Title II rules, so long as the continued existence of effective Section 706 rules makes Title II unnecessary to protect consumers.").

[1508] *See supra* Section III.

protections.[1509] It is our predictive judgment that these protections will be adequate to protect the interests of consumers—including the interest in just, reasonable, and nondiscriminatory conduct—that might otherwise be threatened by the actions of broadband providers. Importantly, broadband providers also are subject to complaints and Commission enforcement in the event that they violate sections 201 or 202 of the Act, the open Internet rules, or other elements of the core broadband Internet access requirements.[1510] We thus find on the record here that section 203's requirements are not necessary to ensure just and reasonable and not unjustly or unreasonably discriminatory rates and practices under section 10(a)(1) nor for the protection of consumers under 10(a)(2).

499. The predictive judgment underlying our section 10 analysis is informed by recent experience. Historically, tariffing requirements were not applied to broadband Internet access service under our prior "information service" classification.[1511] This provides us a practical reference point as part of our overall evaluation of the types of concerns that are likely to arise in this context, underlying our predictive judgment regarding the sufficiency of the rules and requirements that remain.[1512] Consequently, providers will not be subject to *ex ante* rate regulation nor any requirement of advanced Commission approval of rates and practices as otherwise would have been imposed under section 203.

500. We also find that the forbearance for broadband Internet access service satisfies sections 10(a)(1) and (a)(2) and is consistent with the public interest under section 10(a)(3) in light of the objectives of section 706. In addition to our specific conclusions above,[1513] we find more broadly that forbearing from section 203 is consistent with the overall approach that we conclude strikes the right regulatory balance for broadband Internet access service at this time. In particular, given the overlay of section 706 of the 1996 Act, we conclude that the better approach at this time is to focus on applying the core broadband Internet access service requirements rather than seeking to apply the additional provisions and regulations triggered by the classification of broadband Internet access service from which we forbear. As explained above, section 706 of the 1996 Act "explicitly directs the FCC to 'utiliz[e]' forbearance to 'encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.'"[1514] The D. C. Circuit has further held that the Commission "possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband."[1515] We find that the scope of forbearance adopted in this order strikes the right balance at this time between, on the one hand, providing the regulatory protections clearly required by the evidence and our analysis to, among other things, guard the virtuous cycle of Internet innovation and investment and, on the other hand, avoiding additional regulations that do not appear required at this time and that risk needlessly detracting from providers' broadband investments.

[1509] *See, e.g.*, *supra* Sections III.B.2.a, III.C.2, III.D.2.

[1510] *See supra* Section III.E. *See also supra* paras. 495-496.

[1511] *See generally Wireless Broadband Classification Order*, 22 FCC Rcd 5901; *BPL-Enabled Broadband Order*, 21 FCC Rcd 13281; *Wireline Broadband Classification Order*, 20 FCC Rcd 14853; *Cable Modem Declaratory Ruling*, 17 FCC Rcd 4798.

[1512] *See supra* Section III.B.2. *See also, e.g.*, CDT Comments at 15 ("Broadband providers have not been subject to the provisions of Title II, so there is ample real world experience with how the broadband marketplace functions without, for example, subscriber price regulation and tariff-filing requirements. The Commission could reasonably conclude that actual experience demonstrates that the enforcement of such requirements against broadband providers is 'not necessary' to ensure reasonable charges and practices or to protect consumers.").

[1513] In addition to the analysis of sections 10(a)(1) and (a)(2) factors above, *see also supra* paras. 495-496.

[1514] *EarthLink v. FCC*, 462 F.3d at 8-9.

[1515] *Ad Hoc Telecommunications Users Committee v. FCC*, 572 F.3d 903, 906-07 (D.C. Cir. 2009) (*Ad Hoc*).

501. Additionally, section 10(b) requires the Commission, as part of its public interest analysis, to analyze the impact forbearance would have on competitive market conditions. Although there is some evidence of competition for broadband Internet access service, it appears to be limited in key respects, and the record also does not provide a strong basis for concluding that the forbearance granted in this Order is likely to directly impact the competitiveness of the marketplace for broadband Internet access services.[1516] We note that the forbearance we grant is part of an overall regulatory approach designed to promote infrastructure investment in significant part by preserving and promoting innovation and competition at the edge of the network.[1517] Thus, even if the grant of forbearance does not directly promote competitive market conditions, it does so indirectly by enabling us to strike the right balance at this time in our overall regulatory approach. Our regulatory approach, viewed broadly, thus does advance competition in important ways. Ultimately, however, while we consider the section 10(b) criteria in our section 10(a)(3) public interest analysis, our public interest determination rests on other grounds. In particular, under the entirety of our section 10(a)(3) analysis, as discussed above, we conclude that the public interest supports the forbearance adopted in this Order.[1518]

502. We thus are not persuaded by other commenters arguing that the Commission's ability to forbear from section 203 depends on findings of sufficient competition.[1519] As explained above, persuasive evidence of competition is not the sole possible grounds for granting forbearance.[1520] As also explained above, we conclude at this time that the Open Internet rules and other elements of the core broadband Internet access service requirements meet our identified needs in this specific context. The Commission also has recognized previously that tariffing imposes administrative costs.[1521] We also consider our objective of striking the right balance of a regulatory and deregulatory approach, consistent with section 706 of the 1996 Act.[1522] Collectively, these persuade us not to depart from the section 10(a) analysis above, irrespective of the state of competition.

503. Nor are we persuaded by commenters' specific arguments that tariffs filed under section 203 provide "the necessary information to distinguish between providers" and thus should not be subject to forbearance for broadband Internet access service.[1523] As certain of these commenters themselves note,

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[1516] *See supra* Section III.B.2.

[1517] *See supra* Section III.B.1.

[1518] These same section 10(b) findings likewise apply in the case of our other section 10(a)(3) public interest evaluations with respect to broadband Internet access service, and should be understood as incorporated there.

[1519] *See, e.g.*, Letter from Lawrence J. Spiwak, President, Phoenix Center for Advanced Legal & Economic Public Policy Studies, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. 2, Phoenix Center Bulletin No. 36, *Tariffing Internet Termination: Pricing Implications of Classifying Broadband as Title II Telecommunications Service* at 14-16 (filed Oct. 31, 2014) (Phoenix Center Oct. 31, 2014 *Ex Parte* Letter).

[1520] *See supra* Section V.A.

[1521] *Wireless Forbearance Order*, 9 FCC Rcd at 1478-79, para. 175.

[1522] *See supra* para.500. Indeed, even when forbearing from section 203 in the CMRS context, the Commission not only relied in part on the presence of competition, but also that continued application of sections 201, 202, and 208 "provide[s] an important protection in the event there is a market failure," and "tariffing imposes administrative costs and can themselves be a barrier to competition in some circumstances." *Wireless Forbearance Order*, 9 FCC Rcd at 1478-79, para. 175. Those are in accord with key elements of our conclusions here.

[1523] Public Knowledge Comments at 85.

such objectives might be met in other ways.[1524] To the extent that disclosures regarding relevant broadband provider practices are needed, our Open Internet transparency rule is designed to serve those ends.[1525] Commenters do not meaningfully explain why the transparency rule is inadequate, and thus their arguments do not persuade us to depart from our section 10(a) findings above in the case of section 203.

504. We likewise reject the proposals of other commenters that we structure our forbearance from section 203 to permissively, rather than mandatorily, detariff broadband Internet access service.[1526] As a threshold matter, we note that, as discussed above,[1527] our forbearance with respect to broadband Internet access services does not encompass incumbent local exchange carriers or other common carriers that offer Internet transmission services as telecommunications services subject to the full range of Title II requirements under the pre-existing legal framework, which does provide for permissive detariffing.[1528] Under the framework adopted in this Order, however, we are not persuaded that our open Internet rules provide for readily administrable evaluation of the justness and reasonableness of tariff filings. Nor does the record reveal that we can rely on competitive constraints to help ensure the justness and reasonableness of tariff filings. Furthermore, as the Commission previously has recognized, permitting voluntary tariff filings can raise a number of public interest concerns, and consistent with those findings, we mandatorily detariff broadband Internet access service for purposes of the regulatory framework adopted in this Order.[1529]

505. Some commenters also advocate that the Commission retain section 204.[1530] Section 204 provides for Commission investigation of a carrier's rates and practices newly filed with the Commission, and to order refunds, if warranted.[1531] For the reasons described above, however, we forbear from sections 203's tariffing requirements for broadband Internet access service, and adopt mandatory detariffing. Given that decision, commenters do not indicate what purpose section 204 still would serve,

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[1524] *See id*. at 94; *see also, e.g.*, Ammori Dec. 19, 2014 *Ex Parte* Letter at 7 ("[Tariffing] is not needed to ensure nondiscrimination or reasonable practices as the open Internet rules and complaints (regarding edge providers) and limited competition (regarding consumers) should cover it.").

[1525] *See, e.g.*, *2010 Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53; *supra* Section III.C.3.

[1526] NTCA Comments at 13 n.29 (citing *Wireline Broadband Classification Order*, 20 FCC Rcd at 14900-03, paras. 89-95); Letter from Michael R. Romano, Senior Vice President-Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 2-3 (filed Nov. 19, 2014) (NTCA Nov. 19, 2014 *Ex Parte* Letter).

[1527] *See supra* para. 460.

[1528] *Wireline Broadband Classification Order*, 20 FCC Rcd at 14900-03, paras. 89-95. *Cf.* NTCA Nov. 19, 2014 *Ex Parte* Letter at 3 n.3 (arguing for an approach that would enable "RLECs [to] continue to have the option of offering broadband transmission services under tariff, as they do today").

[1529] *See, e.g.*, *Wireless Forbearance Order*, 9 FCC Rcd at 1479-80, paras. 178-79; *Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, 23 FCC Rcd 12260, 12291-92, para. 64 (2008) (*Qwest Enterprise Broadband Forbearance Order*); *Petition of the Embarq Local Operating Companies for Forbearance Under 47 U.S.C. § 160(c) from Application of Computer Inquiry & Certain Title II Common-Carriage Requirements et al*., WC Docket No. 06-147, Memorandum Opinion and Order, 22 FCC Rcd 19478, 19507-08, para. 59 (2007), *aff'd sub nom. Ad Hoc Telecomms. Users Committee v. FCC*, 572 F.3d 903 (D.C. Cir. 2009) (*Ad Hoc v. FCC*); *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services et al*., WC Docket No. 06-125, Memorandum Opinion and Order, 22 FCC Rcd 18705 18737-38, para. 67 (2007) (*AT&T Enterprise Broadband Forbearance Order*), *aff'd sub nom. Ad Hoc v. FCC*, 572 F.3d 903).

[1530] *See, e.g.*, Public Knowledge Comments at 92-94.

[1531] 47 U.S.C. § 204.

and we thus do not depart in this context from our overarching section 10(a) forbearance analysis above.

b. Enforcement-Related Provisions (Sections 205, 212)

506. We find forbearance from applying certain enforcement-related provisions of Title II beyond the core Title II enforcement authority discussed above warranted under section 10(a), and we reject arguments to the contrary.[1532] Section 205 provides for Commission investigation of existing rates and practices and to prescribe rates and practices if it determines that the carrier's rates or practices do not comply with the Communications Act.[1533] The Commission previously has forborne from enforcing section 205 where it sought to adopt a tailored, limited regulatory environment and where, notwithstanding that forbearance, given the continued application of sections 201 and 202 and other complaint processes.[1534] For similar reasons here, we find at this time that the core Title II enforcement authority, along with the ability to pursue claims in court, as discussed below, provide adequate enforcement options and the statutory forbearance test is met for section 205. Consistent with our analysis above, it thus is our predictive judgment that these provisions are not necessary to ensure just, reasonable and nondiscriminatory conduct by providers of broadband Internet access service or to protect consumers under sections 10(a)(1) and (a)(2).[1535] In addition, as above, under the tailored regulatory approach we find warranted here, informed by our responsibilities under section 706, we conclude that forbearance is in the public interest under section 10(a)(3).[1536] We thus reject claims that forbearance from section 205, insofar as it is triggered by our classification of broadband Internet access service, is not warranted.[1537]

507. We also forbear from applying section 212 to the extent that it newly applies by virtue of our classification of broadband Internet access service. Section 212 empowers the Commission to monitor interlocking directorates, i.e., the involvement of directors or officers holding such positions in more than one common carrier.[1538] In the CMRS context, the Commission granted forbearance from section 212 on the grounds that forbearance would reduce regulatory burdens without adversely affecting rates in the CMRS market.[1539] The Commission noted that section 212 was originally placed in the Communications Act to prevent interlocking officers from engaging in anticompetitive practices, such as price fixing. The Commission found, however, that protections of section 201(b),[1540] 221,[1541] and antitrust

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[1532] Public Knowledge Comments at 92-94.

[1533] 47 U.S.C. § 205.

[1534] *Wireless Forbearance Order*, 9 FCC Rcd at 1479, para. 176.

[1535] *See supra* paras. 495-496; Section V.C.2.a.

[1536] *See supra* paras. 495-496; Section V.C.2.a.

[1537] Public Knowledge Comments at 93. Although Public Knowledge et al. cite marketplace differences between CMRS and broadband Internet access service, they do not explain why those differences necessitate a narrower forbearance decision in this context—particularly since we do not rely on the state of competition as a rationale for our forbearance decision—whether as to section 205, or as to the other provisions discussed there (sections 204, 211, 212). *Id*. at 93-94.

[1538] 47 U.S.C. § 212.

[1539] *See Wireless Forbearance Order*, 9 FCC Rcd at 1485, paras. 195–97.

[1540] *See id.* at 1485, paras. 197 n.389.

[1541] The Commission noted that section 221 provided protections against interlocking directorates, but section 221(a) was repealed in the Telecommunications Act of 1996. This section gave the Commission the power to review proposed consolidations and mergers of telephone companies. While section 221(a) allowed the Commission to bolster its analysis to forbear from section 212 in the *Wireless Forbearance Order*, the protections against

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laws[1542] were sufficient to protect consumers against the potential harms from interlocking directorates. Forbearance also reduced an unnecessary regulatory cost imposed on carriers. The Commission later extended this forbearance to dominant carriers and carriers not yet found to be non-dominant, repealing part 62 of its rules and granting forbearance from the provisions of section 212.[1543] Commenters have not explained why we should not find the protections of section 201(b) and antitrust law adequate here, as well.[1544] It likewise is our predictive judgment that other protections will adequately ensure just, reasonable, and nondiscriminatory conduct by providers of broadband Internet access service and protect consumers here, and thus conclude that the application of section 212 is not necessary for purposes of sections 10(a)(1) or (a)(2).[1545] Moreover, as above, under the tailored regulatory approach we find warranted here, informed by our responsibilities under section 706, we conclude that forbearance is in the public interest under section 10(a)(3).[1546]

c. Information Collection and Reporting Provisions (Sections 211, 213, 215, 218-20)

508. In addition, although some commenters advocate that the Commission retain provisions of the Act that provide "discretionary powers to compel production of useful information or the filing of regular reports," we find the section 10(a) factors met and grant forbearance.[1547] However, the cited provisions principally are used by the Commission to implement its traditional rate-making authority over common carriers.[1548] Here, we do not apply tariffing requirements or *ex ante* rate regulation of broadband Internet access service of the sort for which these requirements would be needed. Indeed, we cannot and do not envision adopting such requirements in the future. Thus, we do not find it necessary or in the public interest to apply these provisions simply in anticipation of such an exceedingly unlikely scenario. Moreover, as particularly relevant here, section 706 of the 1996 Act, along with other statutory

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interlocking directorates provided by section 201(b) and 15 U.S.C. § 19 provide sufficient protection to forbear from section 212 for broadband Internet access services.

[1542] *See Wireless Forbearance Order*, 9 FCC Rcd at 1485, paras. 197 n.390 (citing the Clayton Act's protections governing interlocking directorates).

[1543] *See generally 1998 Biennial Regulatory Review—Repeal of Part 62 of the Commission's Rules*, CC Docket No. 98-195, Report and Order, 14 FCC Rcd 16530 (1999).

[1544] Public Knowledge asserts that forbearance will not promote competition, Public Knowledge Comments at 93, but that does not resolve the section 10(a) analysis. *See supra* Section V.A (discussing the role of competition in the section 10(a) forbearance analysis).

[1545] *See supra* paras. 495-496; Section V.C.2.a.

[1546] *See supra* paras. 495-496; Section V.C.2.a.

[1547] Public Knowledge Comments at 91-92 (discussing 47 U.S.C. §§ 211, 213, 215, 218-20).

[1548] Specifically, section 211 allows the Commission to require common carriers to file contracts section; 213 authorizes the Commission to make a valuation of all or of any part of the property owned or used by any carrier; section 215 gives the Commission the authority to examine carrier activities and transactions likely to limit the carrier's ability to render adequate service to the public, or to affect rates; section 218 authorizes the Commission to inquire into the management of the business of the carrier; section 219, *inter alia*, authorizes the Commission to require annual financial and other reports from carriers; and section 220 gives the Commission the discretion to prescribe the forms of accounts, records, and memoranda to be kept by carriers and also includes depreciation prescription provisions. 47 U.S.C. §§ 211, 213, 215, 218-20. We note that certain of these requirements might not, by their terms, apply to the broadband subscriber Internet service. For example, aspects of section 215 and 220 appear specific to telephone service. Because we find forbearance warranted under the section 10 criteria, we need not resolve the possible application of these provisions more precisely.

provisions, give the Commission authority to collect necessary information.[1549] We recognize that the Commission generally did not forbear from these requirements in the CMRS context, noting the minimal regulatory burdens they imposed on such providers, and observing that reservation of this Commission authority would allow further consideration of possible information collection requirements, given that "the cellular market is not yet fully competitive."[1550] As explained above, in this context, however, we find forbearance to be the more prudent course, and therefore in the public interest under section 10(a)(3), given both our intention of tailoring the regulations applicable to broadband Internet access service given our responsibility under section 706 to encourage deployment.[1551] Because we also do not find the information collection and reporting provisions raised by commenters to be necessary at this time within the meaning of sections 10(a)(1) and (a)(2), we forbear from applying these provisions insofar as they otherwise newly would apply by virtue of our classification of broadband Internet access service.[1552]

d. Discontinuance, Transfer of Control, and Network Reliability Approval (Section 214)[1553]

509. We also find section 10(a) met for purposes of forbearing from applying section 214 discontinuance approval requirements.[1554] We reject the arguments of some commenters that we should not forbear, which focus in particular on concerns about discontinuances in rural areas or areas with only one provider.[1555] As a threshold matter, our universal service rules are designed to advance the deployment of broadband networks, including in rural and high-cost areas.[1556] Notably, this includes

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[1549] *See, e.g.*, *Modernizing the Form 477 Data Program*, WC Docket No. 11-10, Report and Order, 28 FCC Rcd 9887, 9925, para. 88 (2013) (citing as authority for the Form 477 data collection, among other things, sections 201 and 403 of the Act and section 706 of the 1996 Act); *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318, 16338-39, para. 50 (2012) (citing as authority for the special access data collection, among other things, sections 201 and 202 of the Act and section 706 of the 1996 Act).

[1550] *Wireless Forbearance Order*, 9 FCC Rcd at 1484-85, paras. 193-94.

[1551] *See supra* paras. 495-496; Section V.C.2.a.

[1552] *See supra* paras. 495-496; Section V.C.2.a.

[1553] Unless otherwise indicated, for convenience, this item uses "discontinuance," to also include reduction or impairment of service under section 214.

[1554] In pertinent part, section 214 requires that certain carriers submit applications to the Commission for the discontinuance, reduction, or impairment of existing services and associated procedural measures. *See* 47 U.S.C. § 214(a)-(c).

[1555] *See, e.g.*, COMPTEL Comments at 22-23 ("Retaining the provisions in [section 214(a)] that require Commission approval prior to discontinuance of service would afford protections for consumers threatened with the loss of Internet access service"); Public Knowledge Comments at 90-91 ("The Commission should not eliminate its jurisdiction over termination of operations in markets where a single provider may be the only point of access to the internet. As recognized by Congress, the Commission's oversight here is necessary to protect consumers from service interruption and termination. Consumers, businesses, public safety entities and government agencies rely on telecommunications services for an ever-increasing number of critical functions."); Rural Broadband Policy Group Comments at 8-9 (encouraging the Commission to "exempt from forbearance . . . Section 214 . . . ensur[ing] that an Internet Service Provider does not discontinue services to rural areas without first obtaining approval from the Commission, a requirement for Universal Service Fund recipients. This is of grave importance to rural communities since USF plays a major role in ensuring telecommunications services reach rural areas.").

[1556] *See, e.g.*, *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, FCC 14-190, paras. 27-28 (rel. Dec. 18, 2014).

certain public interest obligations on the part of high-cost universal service support recipients to offer broadband Internet access service.[1557] Consequently, these provide important protections, especially in rural areas or areas that might only have one provider. Further, the conduct standards in our open Internet rules provide important protections against reduction or impairment of broadband Internet access service short of the complete cessation of providing that service. Thus, while we agree with commenters regarding the importance of broadband Internet access service, including in rural areas or areas served by only one provider, the generalized arguments of those commenters do not explain why the protections described above, in conjunction with the core broadband Internet access service requirements more broadly, are not likely to be sufficient to guard against unjust or unreasonable conduct by providers of broadband Internet access service or to protect consumers.

510. Moreover, the Commission has recognized in the past that section 214 discontinuance requirements impose some costs, although the significance of those costs is greater where (unlike here) the marketplace for the relevant service is competitive.[1558] Further, as discussed above, we find the most prudent regulatory approach at this time is to proceed incrementally when adding regulations beyond what had been the prior *status quo*.[1559] Given those considerations, and against the backdrop of other protections here, as discussed above, commenters have not persuaded us that applying section 214 discontinuance requirements with respect to broadband Internet access service is necessary within the meaning of sections 10(a)(1) and (a)(2) or that forbearance would not be in the public interest under section 10(a)(3).[1560] We thus forbear from applying section 214 discontinuance requirements to the extent that they would be triggered by our classification of broadband Internet access service here.

511. We also reject arguments against forbearance from applying section 214 to enable the Commission to engage in merger review.[1561] As these commenters recognize, prior to this Order the Commission already has commonly reviewed acquisitions of or mergers among entities that provide broadband services.[1562] Although these comments speculate about a future time when communications

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[1557] *See, e.g.*, *id*., FCC 14-190, paras. 13-29; *Modernizing the E-rate Program for Schools and Libraries; Connect America Fund*, WC Docket Nos. 13-184, 10-90, Second Report and Order and Order on Reconsideration, FCC 14-189, paras. 60-76 (rel. Dec. 19, 2014).

[1558] *See, e.g.*, *Wireless Forbearance Order*, 9 FCC Rcd at 1481, para. 182.

[1559] *See supra* paras. 495-496; Section V.C.2.a. The overlay of section 706 of the 1996 Act here, including how it informs our decision to proceed incrementally, distinguishes this from the Commission's prior evaluation of relief from Title II for CMRS. *See infra* Section V.D. Consequently, although we look to the precedent from the CMRS context—as we do other forbearance precedent—to the extent that it is instructive, the mere fact that we declined to forbear from applying a provision in the CMRS context does not demonstrate that we should continue to apply it here as some suggest. *See, e.g.*, Letter from Matthew F. Wood, Policy Director, Free Press, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 n.1 (filed Nov. 21, 2014) (Free Press Nov. 21, 2014 *Ex Parte* Letter) (citing Free Press Comments, GN Docket No. 10-127, at 72 (filed July 15, 2010) (citing prior decisions in the CMRS voice service context as a reason to reach the same conclusions in the broadband context regarding the application of sections 214, 251, and 256 of the Act)).

[1560] *See supra* paras. 495-496; Section V.C.2.a.

[1561] *See, e.g.*, Free Press Nov. 21, 2014 *Ex Parte* Letter at 1 n.3 (filed Nov. 21, 2014) (citing Free Press Comments, GN Docket No. 10-127, at 70-71 (filed July 15, 2010) (advocating that the Commission not forbear from applying section 214 insofar as it requires Commission approval of transfers of control)).

[1562] *Id*. For example, the Commission reviews all applications for transfer or assignment of a wireless license, including licenses used to provide broadband services, pursuant to Section 310(d) of the Act to determine whether the applicants have demonstrated that the proposed transfer or assignment will serve the public interest, convenience, and necessity. As this review is not triggered by reclassification, nothing in this Order limits or otherwise affects our review under Section 310.

services have evolved in such a way that the Commission would lack some other basis for its review, the record here does not demonstrate that it is sufficiently imminent to warrant deviating from our section 10 analysis regarding section 214 above. Notably, today we apply the core broadband Internet access service requirements that provide important constraints on broadband providers' conduct and protections for consumers. Thus, similar to our analysis above, it is our predictive judgment that other protections will be sufficient to ensure just, reasonable, and nondiscriminatory conduct by providers of broadband Internet access service and to protect consumers for purposes of sections 10(a)(1) and (a)(2).[1563] Given our objective to proceed in a tailored manner, we likewise find it in the public interest to forbear from applying section 214 with respect to broadband Internet access service insofar as that provision would require Commission approval of transfers of control involving that service.[1564]

512. We also grant forbearance with respect to section 214(d), under which the Commission may require a common carrier "to provide itself with adequate facilities for the expeditious and efficient performance of its service."[1565] The duty to maintain "adequate facilities" includes "undertak[ing] improvements in facilities and expansion of services to meet public demand."[1566] In practice, we expect that the exercise of this duty here would overlap significantly with the sorts of behaviors we would expect providers to have marketplace incentives to engage in voluntarily as part of the "virtuous cycle."[1567] Beyond that, comments contending that the Commission should not forbear as to that provision do not explain why the core broadband Internet access service requirements do not provide adequate protection at this time. Thus, as under our analysis above, it is our predictive judgment that other protections will be sufficient to ensure just, reasonable, and nondiscriminatory conduct by providers of broadband Internet access service and to protect consumers for purposes of sections 10(a)(1) and (a)(2).[1568] Likewise, informed by section 706 we have an objective of tailoring the regulatory approach here, and thus find forbearance warranted under section 10(a)(3) insofar as section 214(d) would apply by virtue of our classification of broadband Internet access service.[1569]

e. Interconnection and Market-opening Provisions (Sections 251, 252, 256)

513. At this time, we conclude that the availability of other protections adequately address commenters' concerns about forbearance from the interconnection[1570] provisions under the section

[1563] *See supra* paras. 495-496; Section V.C.2.a.

[1564] *See supra* paras. 495-496; Section V.C.2.a.

[1565] 47 U.S.C. § 214(d). *See* Free Press Nov. 21, 2014 *Ex Parte* Letter at 1 n.3 (citing Free Press Comments, GN Docket No. 10-127at 71-72 (filed July 15, 2010) (advocating that he Commission not forbear from applying section 214(d))).

[1566] *RCA Communications*, Memorandum Opinion and Order, 44 FCC 613, 618 (1956).

[1567] Thus, even if our open Internet rules do not directly address this issue, by helping promote the virtuous cycle more generally, they also will help ensure that broadband providers have marketplace incentives to behave in this manner.

[1568] *See supra* paras. 495-496; Section V.C.2.a.

[1569] *See supra* paras. 495-496; Section V.C.2.a.

[1570] Although commenters appear to use the term "interconnection" to mean a potentially wide range of different things, for purposes of this section we use that term solely in the manner it is used and defined for purpose of these provisions. 47 U.S.C. §§ 251, 252, 256. *See also* 47 C.F.R. § 51.5 (defining "interconnection" for purposes of the Commission's implementation of the section 251/252 framework).

251/252 framework[1571] and under section 256.[1572] We thus forbear from applying those provisions to the extent that they are triggered by the classification of broadband Internet access service in this Order. The Commission retains authority under sections 201, 202 and the open Internet rules to address interconnection issues should they arise, including through evaluating whether broadband providers' conduct is just and reasonable on a case-by-case basis. [1573] We therefore conclude that these remaining legal protections that apply with respect to providers of broadband Internet access service will enable us to act if needed to ensure that a broadband provider does not unreasonably refuse to provide service or interconnect.[1574] Further, we find that applying the legal structure adopted in this Order better enables us

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[1571] As discussed above, however, we do not forbear from applying section 251(a)(2) with respect to broadband Internet access service, and that provision thus is outside the scope of the discussion here. *See supra* Section V.C.1.

[1572] *See, e.g.*, COMPTEL Comments at 22-23; Mozilla Comments at 13; Public Knowledge Comments at 85, 88-90; Rural Broadband Policy Group Comments at 8-9; Tumblr Reply at 9-10; Letter from Blake E. Reid, Counsel for TDI, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 3 (filed Nov. 17, 2014); Full Service Network/TrueConnect Feb. 3, 2015 *Ex Parte* Letter at 17. Section 251 of the Act sets forth interconnection obligations (along with other requirements designed to promote competition). 47 U.S.C. § 251. Section 252 establishes certain procedures for negotiating, arbitrating, and approving interconnection agreements implementing the requirements of section 251. 47 U.S.C. § 252. As a result of the forbearance granted from section 251 below, section 252 thus is inapplicable, insofar it is simply a tool for implementing the section 251 obligations. Although we do not forbear from applying section 251(a)(2) with respect to broadband Internet access service, we note that the Commission previously has held that the procedures of section 252 are not applicable in matters simply involving section 251(a). *See, e.g.*, *CoreComm Communications, Inc., and Z-Tel Communications, Inc. v. SBC Communications, Inc. et al*., File No. EB-01-MD-017, Order on Reconsideration, 19 FCC Rcd 8447, 8454-55, para. 18 (2004) (vacated on other grounds) (asserting that "[n]either the general interconnection obligation of section 251(a) nor the interconnection obligation arising under section 332 is implemented through the negotiation and arbitration scheme of section 252"); *Qwest Communications International Inc. Petition for Declaratory Ruling on the Scope of the Duty to File and Obtain Prior Approval of Negotiated Contractual Arrangements under Section 252(a)(1)*, WC Docket No. 02-89, Memorandum Opinion and Order, 17 FCC Rcd 19337, 19341, n.26 (2002) (stating that "only those agreements that contain an ongoing obligation relating to section 251(b) or (c) must be filed" with the state commission pursuant to section 252(a)(1)"). To the extent that the Commission nonetheless could be seen as newly applying section 252 with respect to broadband Internet access service as a result of our classification decision here, we find the section 10 criteria met to grant forbearance from that provision for the same reasons discussed with respect to section 251 in the text above. Section 256 promotes coordinated public telecommunications network planning and interconnectivity and allows Commission oversight of such activities. 47 U.S.C. § 256.

[1573] 47 U.S.C. § 201; *supra* Sections III.C.2, III.D.2. Indeed, one commenter, while asking that the Commission decline to forbear from sections 251(a) and 256, concedes that other provisions might meet the Commission's needs in this context. Mozilla Comments at 13 (advocating that "the Commission should strongly consider retaining section 251(a) and 256, in order to provide an unassailable legal basis for oversight of interconnection and peering practices, even though these sections may not be strictly necessary so long as sections 201 and 202 are effective"). *See also, e.g.*, CDT Feb. 4, 2015 *Ex Parte* Letter at 5 ("The propriety of forbearance from interconnection obligations in Section 251 turns on whether the Commission can rely on Section 201 and 202 to ensure that interconnection agreements and practices are consistent with an open Internet.").

[1574] *See* 47 U.S.C. § 201; *Access Charge Reform, Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, CC Docket No. 96-262, Eighth Report and Order and Fifth Order on Reconsideration, 19 FCC Rcd 9108, 9137-38, paras. 59-61 (2004); *People's Telephone Cooperative v. Southwestern Bell Tel. Co.*, *et al.*, Memorandum Opinion and Order, 62 FCC 2d 113, 116, para. 7 (1976); *Bell System Tariff Offerings of Local Distribution Facilities For Use By Other Common Carriers; and Letter of Chief, Common Carrier Bureau, Dated October 19, 1973, to Laurence E. Harris, Vice President, MCI Telecommunications Corp*., Decision, 46 FCC 2d 413, 418-19, paras. 7-8 (1974); *see also supra* Section III.D.2. Our finding of significant overlap between the authority retained by the Commission under section 201 and the interconnection requirements of section 251 is reinforced by Congress' inclusion of section 251(g) and (i), which, notwithstanding the requirements of section 251,

(continued….)

to achieve a tailored framework than requiring compliance with interconnection under section 251, in that the application of that framework leaves more to the Commission's discretion, rather than being subject to mandatory regulation under section 251.[1575] Because we retain our authority to apply and enforce these other protections, we reject commenters' suggestion that the section 10(a) forbearance criteria are not met as to sections 251 and 256.[1576] Rather, consistent with our analysis for other provisions, we find that other protections render application of these provisions unnecessary for purposes of sections 10(a)(1) and (a)(2) and the forbearance reflects our tailored regulatory approach, informed by section 706, and thus is in the public interest under section 10(a)(3).[1577]

514. We also reject arguments suggesting that we should not forbear from applying sections 251(b) and (c) with respect to broadband Internet access service.[1578] For example, sections 251(b)(1), (4), and (5) impose obligations on LECs regarding resale, access to rights-of-way, and reciprocal compensation.[1579] Section 251(c) subjects incumbent LECs to unbundling, resale, collocation, and other competition policy obligations.[1580] While we recognize the important competition policy goals that

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preserve the Commission's pre-1996 Act interconnection requirements as well as its ongoing authority under section 201. *See* 47 U.S.C. § 251(g), (i).

[1575] 47 U.S.C. 251(c)(2); *see Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket Nos. 96-98, 95-185, First Report and Order, 11 FCC Rcd 15499, 15594, para. 184 (1996) (*Local Competition Order*) (finding that section 251(c)(2) requires that an incumbent must provide interconnection for purposes of transmitting and routing telephone exchange traffic or exchange access traffic or both). Because we forbear from this requirement, we need not, and do not, resolve whether broadband Internet access service could constitute "telephone exchange service" or "exchange access," nor whether any particular non-broadband provider seeking to interconnect and exchange traffic with the broadband provider is a carrier.

[1576] This is particularly true as to section 256, which does not provide the Commission any additional authority that it does not otherwise have. 47 U.S.C. § 256(c); *Comcast v. FCC*, 600 F.3d 642, 659 (D.C. Cir. 2010).

[1577] *See, e.g.*, *supra* paras. 495-496; Section V.C.2.a.

[1578] Free Press Nov. 21, 2014 *Ex Parte* Letter at 1 n.1 (citing Free Press Comments, GN Docket No. 10-127, at 72-74 (filed July 15, 2010)); Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 17-19; Letter from Earl Comstock, Counsel for Full Service Network and TruConnect, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1-5 (filed Feb. 10, 2015) (summarizing meeting with Commissioner Clyburn's office).

[1579] 47 U.S.C. §§ 251(b)(1) (resale); 251(b)(4) (access to rights-of-way); 251(b)(5) (reciprocal compensation). In addition, sections 251(b)(2) and (b)(3) deal with telephone numbering issues, but commenters do not explain how the use of telephone numbers bears on the provision of broadband Internet access service. 47 U.S.C. §§ 251(b)(2), (b)(3).

[1580] 47 U.S.C. §§ 251(c)(1) (duty to negotiate in good faith); 251(c)(3) (unbundling); 251(c)(4) (resale); 251(c)(5) (notice of network changes); 251(c)(6) (collocation). We note that the Commission has determined that section 251(c) has been fully implemented throughout the United States. *See Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, WC Docket No. 04-223, Memorandum Opinion and Order, 20 FCC Rcd 19415, 19440–42, paras. 53–56 (2005) (*Qwest Omaha Forbearance Order*), *aff'd*, *Qwest Corp. v. FCC*, 482 F.3d 471 (D.C. Cir. 2007). We reject claims that section 251(c) has not been fully implemented "[b]ecause the Commission has never applied section 251(c) to the provision of broadband Internet access service" as at odds with that precedent. *See, e.g.*, Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 28-29. The Commission has adopted rules implementing section 251(c), and the fact that the manner in which those rules apply might vary with the classification of a particular service (or changes in that classification) does not alter that fact. *See, e.g.*, *Qwest Corp. v. FCC*, 482 F.3d at 477 (affirming the Commission's interpretation "that § 251(c) had been fully implemented 'because the Commission has issued rules implementing section 251(c) and those rules have gone into effect'") (citation omitted). Therefore, the prohibition in section 10(d) of the Act against forbearing from section 251(c) prior to such a determination is not applicable.

spurred Congress' adoption of these requirements in the 1996 Act, we are persuaded to forbear from applying these provisions under the circumstances here. In particular, we find the interests of customers of customers of broadband Internet access service, under section 10(a)(1) and (a)(2), and the public interest more generally, under section 10(a)(3) is best served by an overall regulatory framework that includes forbearance from these provisions, which balances the need for appropriate Commission oversight with the goal of tailoring its regulatory requirements.[1581] The Commission previously has sought to balance the advancement of competition policy with the duty to encourage advanced services deployment pursuant to section 706.[1582] Moreover, to the extent that entities otherwise are LECs or incumbent LECs, the forbearance granted in this decision does not eliminate any previously-applicable requirements of sections 251(b) and (c) and our implementing rules.[1583] In addition, the Commission retains authority to address unjust or unreasonable conduct through its section 201 and 202 authority. Thus, we do not find the competition policy requirements of sections 251 and 259 and the implementing rules necessary within the meaning of section 10(a)(1) or (2), and conclude that forbearance would be in the public interest under section 10(a)(3). As a result, we forbear from those requirements in the context of broadband Internet access service to the extent that those provisions newly apply by virtue of our classification of that service here.

[1581] *See supra* paras. 495-496; Section V.C.2.a.

[1582] *See, e.g.*, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17141-54, paras. 272-97 (2003) (*Triennial Review Order*), *aff'd in part, remanded in part, vacated in part*, *United States Telecom Association v. FCC*, 359 F.3d 554, 564-93 (D.C. Cir. 2004) (*USTA II*) (considering the objectives of section 706, the Commission imposed only limited unbundling obligations on incumbent LECs' mass market next-generation broadband loop architectures); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Order on Reconsideration, 19 FCC Rcd 15856, 15859-61, paras. 7-9 (2004) (*MDU Reconsideration Order*) (determining that the same section 706 considerations justified extending the *Triennial Review Order*'s FTTH unbundling relief to encompass FTTH loops serving predominantly residential multiple dwelling units (MDUs)); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Order on Reconsideration, 19 FCC Rcd 20293, 20297-303 paras. 9-19 (2004) (*FTTC Reconsideration Order*) (finding that the FTTH analysis applied to FTTC loops, as well, and granting the same unbundling relief to FTTC as applied to FTTH); *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c)*, WC Docket Nos. 01-338, 03-235, 03-260, 04-48, Memorandum Opinion and Order, 19 FCC Rcd 21496, 21512, para. 34 (2004) (*Broadband 271 Forbearance Order*) (analyzing the public interest of relieving BOCs of unbundling obligations under section 271 under the umbrella of section 706); *Wireline Broadband Classification Order*, 20 FCC Rcd at 14894-98, paras. 77-85 (stating that in assessing the alternate regulatory frameworks for wireline broadband Internet access services, the Commission must ensure that the balance struck provides adequate incentives for infrastructure investment, in accordance with section 706's Congressional objectives). Our overall analysis of the record on investment incentives—including evidence and arguments regarding more extensive or less extensive regulation than the tailored approach adopted here—is discussed in greater detail above. *See supra* Section IV.C.5.

[1583] As discussed below, *see infra* Section V.D., we evaluate forbearance assuming *arguendo* that provisions apply.

f. Subscriber Changes (Section 258)

515. We also are persuaded, under the section 10(a) framework, to forbear from applying section 258's prohibition on unauthorized carrier changes, and we reject suggestions to the contrary by some commenters.[1584] In the voice service context, that provision, and the Commission's implementing rules, provide important protections given the ability of a new provider to effectuate a carrier change not only without the consent of the customer but also without direct involvement of the customer's existing carrier.[1585] While unauthorized carrier change problems theoretically might arise even outside such a context, the record here does not reveal whether or how, in practice, unauthorized changes in broadband Internet access service providers could occur. As a result, on this record we are not persuaded what objective would be served by application of this provision at all, particularly given the protections provided by the core broadband Internet access service requirements. As under our analysis of other provisions, we conclude that application of section 258 is not necessary for purposes of sections 10(a)(1) and (a)(2) and that forbearance is in the public interest.[1586] Therefore, insofar as our classification of broadband Internet access service would newly give rise to the application of section 258, we forbear from applying section 258 to that service.

g. Other Title II Provisions

516. Beyond the provisions already addressed above, we also forbear from applying those additional Title II provisions that could give rise to new requirements by virtue of our classification of broadband Internet access service to the extent of our section 10 authority. We find it notable that no commenters raised significant concerns about forbearing from these requirements, which reinforces our analysis below.[1587]

517. For one, we conclude the three-party statutory test under section 10(a) is met to forbear from applying certain provisions concerning BOCs in sections 271-276 of the Act to the extent that they would impose new requirements arising from the classification of broadband Internet access service in this Order. Sections 271, 272, 274, and 275 establish requirements and safeguards regarding the provision of interLATA services, electronic publishing, and alarm monitoring services by the Bell Operating Companies (BOCs) and their affiliates.[1588] Section 273 addresses the manufacturing, provision,

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[1584] *See, e.g.*, Public Knowledge Comments at 85. We evaluate forbearance from section 258 by assuming *arguendo* that it applies. *See infra* Section V.D. Because we conclude that forbearance is warranted even with that assumption, we need not, and do not, decide whether broadband Internet access service is "telephone exchange service" or "telephone toll service" within the meaning of section 258(a).

[1585] *See, e.g.*, *Implementation of the Subscriber Carrier Selection Changes Provisions of the Telecommunications Act of 1996; Policies and Rules Concerning Unauthorized Changes of Consumers Long Distance Carriers*, CC Docket No. 94-129, Second Report and Order and Further Notice Of Proposed Rulemaking, 14 FCC Rcd 1508, 1517-18, para. 12 (1998); *Implementation of the Subscriber Carrier Selection Changes Provisions of the Telecommunications Act of 1996; Policies and Rules Concerning Unauthorized Changes of Consumers Long Distance Carriers*, CC Docket No. 94-129, Further Notice Of Proposed Rulemaking and Memorandum Opinion and Order on Reconsideration, 12 FCC Rcd 10674, 10678, para. 4 (1997).

[1586] *See supra* paras. 495-496; Section V.C.2.a.

[1587] *See supra* para. 494.

[1588] 47 U.S.C. §§ 271-72, 274-75. The Commission has determined that section 271 has been fully implemented throughout the United States. *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c)*, WC Docket No. 01-338, Memorandum Opinion and Order, 19 FCC Rcd 21496, 21503,para. 15 (2004) (*Section 271 Broadband Forbearance Order*), *aff'd sub nom. EarthLink, Inc. v. FCC*, 462 F.3d 1.(D.C. Cir. 2006). Therefore, the prohibition in section 10(d) of the Act against forbearing from section 271 prior to such a determination is not applicable.

and procurement of telecommunications equipment and customer premises equipment (CPE) by the BOCs and their affiliates, the establishment and implementation of technical standards for telecommunications equipment and CPE, and joint network planning and design, among other matters.[1589] Section 276 addresses the provision of "payphone service," and in particular establishes nondiscrimination standards applicable to BOC provision of payphone service.[1590]

518. With one exception (discussed below), we conclude that the application of any newly-triggered provisions of sections 271 through 276 to broadband Internet access service is not necessary within the meaning of section 10(a)(1) or (2), and that forbearance from these requirements is consistent with the public interest under section 10(a)(3). Many of the provisions in these sections have no current effect.[1591] Other provisions in these sections impose continuing obligations that are at most tangentially related to the provision of broadband Internet access service.[1592] Forbearance from any application of these provisions with respect to broadband Internet access service insofar as they are newly triggered by our classification of that service will not meaningfully affect the charges, practices, classifications, or regulations for or in connection with that service, consumer protection, or the public interest.[1593]

[1589] 47 U.S.C. § 273.

[1590] 47 U.S.C. § 276(a).

[1591] *See, e.g.*, 47 U.S.C. § 271(d)(1)-(4) (setting forth procedural requirements regarding BOC applications for authorization to provide in-region, interLATA services); 47 U.S.C. § 274(g)(2) (specifying that the provisions of section 274 shall not apply to conduct occurring more than four years after the enactment of the 1996 Act); 47 U.S.C. § 274(a) (prohibiting BOC entry into the provision of alarm monitoring services for five years from the enactment of the 1996 Act); *compare* 47 U.S.C. § 272(f) (providing for the sunset of the provisions of section 272, other than section 272(e), absent a Commission rule or order extending the period in which those provisions remain in effect) *with Sunset of the BOC Separate Affiliate and Related Requirements; 2000 Biennial Regulatory Review Separate Affiliate Requirements of Section 64.1903 of the Commission's Rules; Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) with Regard to Certain Dominant Carrier Regulations for In-Region, Interexchange Services*, WC Docket Nos. 02-112, 06-120, CC Docket No. 00-175, Report and Order and Memorandum Opinion and Order, 22 FCC Rcd 16440, 16479-83 , paras. 79–86 (2007) (*Section 272 Sunset Order*) (declining to extend the section 272 safeguards with regard to interLATA telecommunications services); *Request for Extension of the Sunset Date of the Structural, Nondiscrimination, and Other Behavioral Safeguards Governing Bell Operating Company Provision of In-Region, InterLATA Information Services*, CC Docket No. 96-149, Order, 15 FCC Rcd 3267 (2000) (*Information Services Sunset Order*) (denying request to extend the section 272 safeguards with regard to interLATA information services).

[1592] *See, e.g.*, 47 U.S.C. § 273(c) (requiring each BOC to "maintain and file with the Commission full and complete information with respect to the protocols and technical requirements for connection with and use of its telephone exchange service facilities"); 47 U.S.C. § 273(d)(3) (setting forth procedures for establishing industry-wide standards for telecommunications equipment and CPE).

[1593] *See also supra* paras. 495-496; Section V.C.2.a. Consistent with our general approach to forbearance here, which seeks to address new requirements that could be triggered by our classification of broadband Internet access service, we do not forbear with respect to provisions to the extent that they already applied prior to this Order. For example, section 271(c) establishes substantive standards that a BOC was required to meet in order to obtain authorization to provide interLATA services in an in-region state, and which it and must continue to meet in order to retain that authorization. 47 U.S.C. § 271(c); *see* 47 U.S.C. § 271(d)(6) (authorizing various Commission actions in the event the Commission determines that a BOC has ceased to meet the conditions for authorization to provide in-region, interLATA services). In addition, section 271(c)(2)(B)(iii), requires that a BOC provide nondiscriminatory access to poles, ducts, conduits, and rights-of-way in accordance with the requirements of section 224 of the Act, does not depend upon the classification of BOCs' broadband Internet access service. In combination with section 271(d)(6), this provision provides the Commission with an additional mechanism to enforce section 224 against the BOCs. We also do not forbear from section 271(d)(6) to the extent that it provides for enforcement of the provisions we do not forbear from here. In addition, while the BOC-specific provisions of section 276 theoretically could be

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519. Forbearance for certain other provisions not meaningfully addressed by commenters also flows from our analysis of certain provisions that commenters did raise or that are discussed in greater detail elsewhere. First, as described elsewhere, we forbear from all *ex ante* rate regulations, tariffing and related recordkeeping and reporting requirements insofar as they would arise from our classification of broadband Internet access service.[1594] Second, we likewise forbear from unbundling and network access requirements that would newly apply based on the classification decision in this Order.[1595] It is our predictive judgment that other protections—notably the core broadband Internet access service requirements—will be adequate to ensure just, reasonable, and nondiscriminatory conduct by providers of broadband Internet access service and to protect consumers for purposes of sections 10(a)(1) and (a)(2).[1596] Further, informed by our responsibilities under section 706, we adopt an incremental regulatory approach that we find strikes the appropriate public interest balance under section 10(a)(3).[1597] For these same reasons, we forbear from section 221's property records classification and valuation provisions,[1598] which would be used in the sort of *ex ante* rate regulation that we do not find warranted for broadband Internet access service. Likewise, just as we forbear from broader unbundling obligations, that same analysis persuades us to forbear from applying section 259's infrastructure sharing and notification requirements.[1599]

520. We also grant forbearance from other miscellaneous provisions to the extent that they would newly apply as a result of our classification insofar as they do not appear necessary or even relevant for broadband Internet access service of broadband Internet access service. For one, section 226, the Telephone Operator Consumer Services Improvement Act ("TOCSIA"),[1600] protects consumers making interstate operator services calls from pay telephones, and other public telephones, against unreasonably high rates and anti-competitive practices.[1601] Section 227(c)(3) provides for carriers to have certain notification obligations as it relates to the requirements of the Telephone Consumer Protection Act (TCPA),[1602] and section 227(e) restricts the provision of inaccurate caller identification information

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newly implicated insofar as the reclassification of broadband Internet access service might result in some entities newly being treated as a BOC, the bulk of section 276 appears independent of the classification of broadband Internet access service and we thus do not forbear as to those provisions.

[1594] *See supra* Sections V.C.2.a, V.C.2.c., V.C.3.

[1595] *See supra* Section V.C.2.e.

[1596] *See supra* paras. 495-496; Section V.C.2.a.

[1597] *See supra* paras. 495-496; Section V.C.2.a.

[1598] 47 U.S.C. § 221.

[1599] *See* 47 U.S.C. § 259.

[1600] 47 U.S.C. § 226.

[1601] S. Rep. No. 439, 101st Cong., 2d Sess. at 1 (1990). "Operator services" include collect or person-to-person calls, calls billed to a third number, and calls billed to a calling card or credit card. These services may be provided by an automated device as well as by a live operator. *Id.*

[1602] 47 U.S.C. § 227(c)(3)(B), (C), (L). Because we are forbearing from these substantive requirements, we note that, as a consequence, there will not be a private right of action granted under section 227(c)(5) based on alleged violations of those forborne-from requirements in the context of broadband Internet access service. We note that while the universe of "calls" covered by section 227(b)(1)(A)(iii) is prerecorded or autodialed calls to "a paging service, cellular telephone service, specialized mobile radio service, or other radio common carrier service, or any service for which the called party is charged for the call" even with the reclassification of mobile BIAS we do not interpret there to be any new or expanded restrictions arising from that provision because the relevant calls also would need to be specifically to a "telephone number" assigned to the relevant service. 47 U.S.C. §

(continued….)

associated with any telecommunications service.[1603] Section 228 regulates the offering of pay-per-call services and requires carriers, inter alia, to maintain lists of information providers to whom they assign a telephone number, to provide a short description of the services the information providers offer, and a statement of the cost per minute or the total cost for each service.[1604] Section 260 regulates local exchange carrier practices with respect to the provision of telemessaging services.[1605] It is not clear how these provisions would be relevant to broadband Internet access service, and commenters to not provide meaningful arguments in that regard. Thus, for that reason, as well as the continued availability of the core broadband Internet access service requirements, we find enforcement of these provisions, to the extent they would newly apply by virtue of our classification of broadband Internet access service, is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with broadband providers are just and reasonable and are not unjustly or unreasonably discriminatory under section 10(a)(1).[1606] Enforcement also is not necessary for the protection of consumers under section 10(a)(2), and forbearance from applying these provisions is consistent with the public interest under section 10(a)(3), particularly given our conclusion, informed by section 706, that it is appropriate to proceed incrementally here.[1607]

521. We also note that the provisions of section 276 underlying the Commission's regulation of inmate calling services (ICS) and the ICS rules themselves do not appear to vary depending on whether broadband Internet access service is an "information service" or "telecommunications service."[1608] We note, however, that The D.C. Prisoners' Legal Services Project, Inc., *et al.* (the ICS Petitioners) express concern that forbearance under this order could be misconstrued as a limitation on the Commission's authority with respect to any advanced ICS services (such as video visitation) that may replace or supplement traditional ICS telephone calls.[1609] It is not our intent to limit in any way the Commission's ability to address ICS, particularly given the Commission's finding in 2013 that the ICS market "is failing to protect the inmates and families who pay [ICS] charges."[1610] We therefore find that forbearance would fail to meet the statutory test of section 10 of the Act, in that the protections of section 276 remain necessary to protect consumers and serve the public interest. Accordingly, out of an abundance of caution we make clear that we are not forbearing from applying section 276 to the extent applicable to ICS, as well as the ICS rules.

227(b)(1)(A)(iii). As a result, there also would not be any private right of action under section 227(b)(3) that is newly triggered by the decisions in this Order. 47 U.S.C. § 227(b)(3).

[1603] 47 U.S.C. § 227(e).

[1604] 47 U.S.C. § 228.

[1605] 47 U.S.C. § 260.

[1606] 47 U.S.C. § 160(a)(1). *See supra* paras. 495-496; Section V.C.2.a.

[1607] 47 U.S.C. §§ 160(a)(2), (a)(3). *See supra* paras. 495-496; Section V.C.2.a.

[1608] *See, e.g.*, *Rates for Interstate Inmate Calling Services*, WC Docket No. 12-375, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 14107, 14115, para. 14 (2013) (*ICS Order*) ("[S]ection 276 directs the Commission to 'establish a per call compensation plan to ensure that all payphone service providers'—which the statute defines to include providers of ICS—'are fairly compensated for each and every completed intrastate and interstate call.' . . . Section 276 makes no mention of the technology used to provide payphone service and makes no reference to 'common carrier' or 'telecommunications service' definitions.") (internal citations omitted) *et seq*. *pets. for stay granted in part sub nom. Securus Techs. v. FCC*, No. 13-1280 (D.C. Cir. Jan. 13, 2014); 47 C.F.R. §§ 64.6000.

[1609] *See generally* Comments from Deborah M. Golden, D.C. Prisoners' Legal Services Project, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (filed Feb. 18, 2015).

[1610] *See ICS Order*, 28 FCC Rcd at 14109-10, para. 3.

h. Truth-in-Billing Rules

522. We also find the section 10(a) criteria met and forbear from applying our truth-in-billing rules insofar as they are triggered by our classification of broadband Internet access service here.[1611] The core broadband Internet access requirements, including the requirement of just and reasonable conduct under section 201(b), will provide important protections in this context even without specific rules.[1612] Moreover, even advocates of such protections observe that this "may require further examination by the Commission," and do not actually propose that the current truth-in-billing rules immediately apply in practice, instead recommending that the Commission "temporarily stay these rules [and] implement interim provisions."[1613] They do not explain what such interim provisions should be, however, and as we explain below we are not persuaded that a stay or time-limited forbearance provides advantages relative to the approach we adopt here.[1614] Consequently, as in our analysis above, we are not persuaded that our truth-in-billing rules are necessary for purposes of sections 10(a)(1) and (a)(2), particularly given the availability of the core broadband Internet access service requirements.[1615] Likewise, as above, under the tailored regulatory approach we find warranted here, informed by our responsibilities under section 706, we conclude that forbearance is in the public interest under section 10(a)(3).[1616]

i. Roaming-Related Provisions and Regulations

523. We find section 10(a) met for purposes of granting certain conditional forbearance from roaming regulations. We recognize that the reclassification decisions elsewhere in this Order potentially alter the scope of an MBIAS provider's roaming obligations. The Commission has previously established two different regimes to govern the roaming obligations of commercial mobile providers. The first regime, established in 2007 pursuant to authority under sections 201 and 202 of the Act, imposes obligations to provide automatic roaming on CMRS carriers that "offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilizes an in-network switching facility."[1617] Such carriers were required, on reasonable request, to provide automatic roaming on reasonable and not unreasonably discriminatory terms and conditions.[1618]

524. Because this regime did not extend to data services that were not at that time classified as CMRS,[1619] the Commission adopted another roaming regime in 2011 under its Title III authority, applicable to "commercial mobile data services," which were defined to include all those commercial

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[1611] *See, e.g.*, Public Knowledge Dec. 19, 2014 *Ex Parte* Letter at 21 & n.97.

[1612] The Commission has previously noted the availability of section 201(b)'s protections outside the scope of the truth-in-billing rules. *See, e.g.*, *Empowering Consumers To Prevent and Detect Billing For Unauthorized Charges ("Cramming"); Consumer Information and Disclosure; Truth-in-Billing and Billing Format*, CG Docket Nos. 11-116, 09-158; CC Docket No. 98-170, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 4436, 4455, para. 47 (2012) ("remind[ing] CMRS carriers that," in addition to "those Truth-in-Billing rules that already apply to them" they "remain subject to section 201(b), . . .and to the Commission's enforcement authority").

[1613] Public Knowledge Dec. 19, 2014 *Ex Parte* Letter at 21.

[1614] *See infra* Section V.D.

[1615] *See supra* paras. 495-496; Section V.C.2.a.

[1616] *See supra* paras. 495-496; Section V.C.2.a.

[1617] *See* 47 C.F.R. § 20.12(a)(2), (d).

[1618] *See* 47 C.F.R. § 20.12(d).

[1619] *See Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, WT Docket No. 05-265, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 15817, 15837-38, para. 56 (2007).

mobile services that are not interconnected with the public switched network, including (under the definition of "public switched network" applicable at that time) MBIAS.[1620] Under this data roaming provision, covered service providers were required to offer roaming arrangements to other such providers on commercially reasonable terms and conditions, subject to certain specified limits.[1621]

525. Our determination herein to reclassify MBIAS as CMRS potentially affects the roaming obligations of MBIAS providers in two ways. First, absent any action by the Commission to preserve data roaming obligations, the determination that MBIAS is an interconnected service would result in providers of MBIAS no longer being subject to the data roaming rule, which as noted above, applies only to non-interconnected services. Second, the determination that MBIAS is CMRS potentially subjects MBIAS providers to the terms of the CMRS roaming rules.

526. We decide to retain for MBIAS, at this time, the roaming obligations that applied prior to reclassification of that service, consistent with our intent to proceed incrementally with regard to regulatory changes for MBIAS, and in the absence of significant comment in the instant record regarding the specific roaming requirements that should apply to MBIAS after reclassification. We therefore forbear from the application of the CMRS roaming rule, section 20.12(d), to MBIAS providers, conditioned on such providers continuing to be subject to the obligations, process, and remedies under the data roaming rule codified in section 20.12(e). That condition, coupled with the core broadband Internet access service requirements that remain, persuade us that the forborne-from rules are not necessary at this time for purposes of sections 10(a)(1) and (a)(2) and that such conditional forbearance is in the public interest under section 10(a)(3).[1622] We commit, however, to commence in the near term a separate proceeding to revisit the data roaming obligations of MBIAS providers in light of our reclassification decisions today. Such a proceeding will permit us to make an informed decision, based on a complete and focused record, on the proper scope of MBIAS providers' roaming obligations after reclassification. Pending the outcome of that reexamination, MBIAS providers covered by our conditional forbearance continue to be subject to the obligations under the data roaming rule, and we will take any action necessary to enforce those obligations. To ensure, however, that providers have certainty regarding their roaming obligations pending the outcome of the roaming proceeding, we further provide that determinations adopted in that proceeding will apply only prospectively, *i.e.* only to conduct occurring after the effective date of any rule changes. The data roaming rule, rather than the automatic roaming rule or Title II, will govern conduct prior to any such changes.

j. Terminal Equipment Rules

527. We also determine under section 10(a) to forbear from applying certain terminal equipment rules to the extent that they would newly apply by virtue of the classification of broadband Internet access service.[1623] Notably, our open Internet rules themselves prevent broadband Internet access

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[1620] *See Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265, Second Report and Order, 26 FCC Rcd 5411, 5411-12, paras. 1, 2 (2011); 47 C.F.R. §§ 20.3, 20.12(a)(3), 20.12(d).

[1621] *See* 47 C.F.R. § 20.12(e).

[1622] *See supra* paras. 495-496; Section V.C.2.a.

[1623] Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 21. While Full Service Network/TruConnect refer generally to our "Part 68" rules, that Part also includes our hearing aid compatibility rules, and as described above, the Commission's existing hearing aid compatibility rules do not immediately impose new hearing aid compatibility requirements on mobile wireless broadband providers by virtue of the classification decisions in this Order, and we do not forbear from applying those rules or section 710 of the Act. *See supra* Section V.C.1.b. Section 710 of the Act and our hearing aid compatibility rules thus are not encompassed by the discussion here.

service providers from restricting the use of non-harmful devices,[1624] subject to reasonable network management.[1625] Consequently, as in our analysis above, we are not persuaded that the application of terminal equipment rules, insofar as they would newly apply to broadband Internet access service providers by virtue of our classification decision here, are necessary for purposes of sections 10(a)(1) and (a)(2), particularly given the availability of the core broadband Internet access service requirements, and in particular our bright-line rules.[1626] Likewise, as above, under the tailored regulatory approach we find warranted here, informed by our responsibilities under section 706, we conclude that forbearance is in the public interest under section 10(a)(3).[1627]

3. Other Provisions and Regulations

528. Having discussed in detail here and above the analyses that persuade us to grant broad forbearance from Title II provisions to the extent of our section 10 authority, we conclude that the same analysis justifies forbearance from other provisions and regulations insofar as they would be triggered by the classification of broadband Internet access service in this Order. In particular, beyond the Title II provisions and certain implementing rules discussed above, the classification of broadband Internet access service could give rise to obligations related to broadband providers' provision of that service under Title III, Title VI and Commission rules.

- First, certain provisions of Titles III and VI[1628] and Commission rules[1629] associated with those Titles or the provisions of Title II from which we forbear may apply by their terms to *providers* classified in particular ways.[1630] As to this first category of requirements, and except as to the core broadband

[1624] *See supra* Section III.C.1.

[1625] *See supra* Section III.D.4. Insofar as any Part 68 rules subject to forbearance here also permitted carriers to take steps to protect their networks, we expect that such steps also would constitute reasonable network management under our open Internet rules.

[1626] *See supra* paras. 495-496; Section V.C.2.a.

[1627] *See supra* paras. 495-496; Section V.C.2.a.

[1628] The Commission has forborne from provision of Title II and from Commission rules on many instances in the past. However, nothing in the language of section 10 categorically limits the scope of Commission forbearance only to the provisions of Title II, *see generally* 47 U.S.C. § 160, and although it has been less common for the Commission to forbear from provisions of Title III and VI, it has done so at times. *See, e.g.*, *FCBA Forbearance Order*, 13 FCC Rcd 6293 (granting certain forbearance from section 310(d) under section 10 of the Act); *Petition for Declaratory Ruling to Clarify 47 U.S.C. § 572 in the Context of Transactions Between Competitive Local Exchange Carriers and Cable Operators; Conditional Petition for Forbearance From Section 652 of the Communications Act for Transactions Between Competitive Local Exchange Carriers and Cable Operators*, 27 FCC Rcd 11532 (2012) (granting certain forbearance from section 652 under section 10 of the Act).

[1629] For clarity, we note that by "rules" we mean both codified and uncodified rules. In addition, by "associated" Commission rules, we mean rules implementing requirements or substantive Commission jurisdiction under provisions in Title II, III, and/or VI of the Act from which we forbear.

[1630] The Order's classification of broadband Internet access service could trigger requirements that apply by their terms to "common carriers," "telecommunications carriers," "providers" of common carrier or telecommunications services, or "providers" of CMRS or commercial mobile services. Similarly, other provisions of the Act and Commission rules may impose requirements on entities predicated on the entities' classification as a "common carrier," "telecommunications carrier," "provider" of common carrier or telecommunications service, or "provider" of CMRS or commercial mobile service without being framed in those terms. As illustrative examples, *see, e.g.*, 47 C.F.R. § 61.3(ss) (defining a "tariff" as "[s]chedules of rates and regulations filed by common carriers"); 47 C.F.R. § 64.2101 ("covered provider" defined to include, for example, "a local exchange carrier as defined in § 64.4001(e),

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Internet access service requirements, we forbear from any such provisions and regulations to the full extent of our authority under section 10, but only insofar as a broadband provider falls within those categories or provider classifications by virtue of its provision of broadband Internet access service, but not insofar as those entities fall within those categories of classifications by virtue of other services they provide.

- Second, certain provisions of Titles III and VI and Commission rules associated with those Titles or the provisions of Title II from which we forbear may apply by their terms to *services* classified in particular ways.[1631] Regarding this second category of requirements (to the extent not already covered by the first category, above), and except as to the core broadband Internet access service requirements, we forbear from any such provisions and regulations to the full extent of our authority under section 10 specifically with respect to broadband Internet access service, but do not forbear from these requirements as to any other services (if any) that broadband providers offer that are subject to these requirements.

- Third, while commenters do not appear to have identified such rules, there potentially could be other Commission rules for which our underlying authority derives from provisions of the Act all of which we forbear from under the first two categories of requirements identified above, or under our Title II forbearance discussed above, but which are not already subject to that identified scope of forbearance. To the extent not already identified in the first two categories of requirements above, and except as to the core broadband Internet access service requirements, we forbear to the full extent of our authority under section 10 from rules based entirely on our authority under provisions we forbear from under the first and second categories above (or for which the forborne-from provisions provide essential authority) insofar as the rules newly apply as a result of the classification of broadband Internet access service.
- Fourth, we include within the scope of our broad forbearance for broadband Internet access service any pre-existing rules with the primary focus of implementing the requirements and substantive Commission jurisdiction in sections 201 and/or 202, including forbearing from pre-existing pricing, accounting, billing and recordkeeping rules.[1632] As with the rules identified under the first and second categories above, we do not forbear insofar as a provider is subject to these rules by virtue of some other service it provides.
- Fifth, the classification of broadband Internet access service as a telecommunications service could trigger certain contributions to support mechanisms or fee payment requirements under the Act and

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an interexchange carrier as defined in § 64.4001(d), a provider of commercial mobile radio service as defined in § 20.3 of this chapter . . .”).

[1631] The classification of broadband Internet access service as a telecommunications service and, in the mobile context, also CMRS service under the Communications Act, thus could trigger any requirements that apply by their terms to “common carrier services,” “telecommunications services,” or “CMRS” or “commercial mobile” services. Similarly, other provisions of the Act and Commission rules may impose requirements on services predicated on a service’s classification as a “common carrier service,” “telecommunications service,” “CMRS” or “commercial mobile” service without being framed in those terms. As an illustrative example, *see, e.g.*, 47 C.F.R. § 64.708(i) (“operator services” are defined as certain interstate telecommunications services).

[1632] This forbearance would not include rules implementing our substantive jurisdiction under provisions of the Act from which we do not forbear that merely cite or rely on sections 201 or 202 in some incidental way, such as by, for example, relying on the rulemaking authority provided in section 201(b). Consistent with our discussions above, this category also does not include our open Internet rules.

> Commission rules, including some beyond those encompassed by the categories above.[1633] Insofar as any provisions or regulations not already covered above would immediately require the payment of contributions or fees by virtue of the classification of broadband Internet access service (rather than merely providing Commission authority to assess such contributions or fees) they are included within the scope of our forbearance. As under the first and second categories above, we do not forbear insofar as a provider is subject to these contribution or fee payments by virtue of some other service it provides.

Just as we found in our analysis of Title II provisions,[1634] it is our predictive judgment that other protections—notably the core broadband Internet access service requirements—will be adequate to ensure just, reasonable, and nondiscriminatory conduct by providers of broadband Internet access service and to protect consumers for purposes of sections 10(a)(1) and (a)(2). Further, informed by our responsibilities under section 706, we adopt an incremental regulatory approach that we find strikes the appropriate public interest balance under section 10(a)(3). These collectively persuade us that forbearance for the additional categories of provisions and regulations above is justified to the extent of our section 10 authority.

529. We further make clear that our approach to forbearance in this Order, which excludes certain categories of provisions and regulations, effectively addresses the concerns of a number of commenters regarding the scope of our forbearance.[1635] First, we forbear here only to the extent of our authority under section 10 of the Act. Section 10 provides that "the Commission shall forbear from applying any regulation or any provision of this chapter to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services" if certain conditions are met.[1636] Certain provisions or regulations do not fall within the categories of provisions of the Act or Commission regulations encompassed by that language because they are not applied to telecommunications carriers or telecommunications services, and we consequently do not forbear as to those provisions or regulations.[1637]

530. Second, we do not forbear from provisions or regulations that are not newly triggered by the classification of broadband Internet access service. The *2014 Open Internet NPRM* sought comment on possible forbearance premised on addressing the consequences that flowed from any classification decisions it might adopt.[1638] Although some commenters include sweeping requests that we forbear from all of Title II or the like, in practice, they, too, appear focused on the consequences of classification

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[1633] *See, e.g.*, 47 C.F.R. Part 1, Subpart G (filing fees, regulatory fees).

[1634] *See generally supra* Section V.C.2; *see also, e.g.*, *supra* paras. 495-496; Section V.C.2.a.

[1635] To the extent that any questions arise as to specific provisions or regulations in the future, we can address those as needed at that time. We note in this regard that the Commission cannot impose a penalty for conduct in the absence of "fair notice of what is prohibited." *FCC v. Fox Television Stations*, 132 S. Ct. 2307, 2317 (2012).

[1636] 47 U.S.C. § 160.

[1637] *See, e.g.*, *Forbearance from Applying Provisions of the Communications Act To Wireless Telecommunications Carriers*, WT Docket No. 98-100, First Report and Order, 15 FCC Rcd 17414, 17427, para. 28 (2000) (holding that "the three-prong [section 10] forbearance test is inapplicable to UTC's request because the Commission lacks forbearance authority over non-common carriers such as UTC," where UTC had sought modification of Commission rules "to allow private microwave licensees to act as providers to other carriers"); *FCBA Forbearance Order*, 13 FCC Rcd at 6299, para. 9 ("licensees governed by these rule parts who do not meet the definition of 'telecommunications carrier' (e.g., public safety and private microwave licensees) are beyond the scope of our section 10 forbearance authority, and therefore are not subject to the revised procedures established by this *Order*").

[1638] *See, e.g.*, *2014 Open Internet NPRM*, 29 FCC Rcd at 5612-13, 5615-16 paras. 148, 153.

decisions.[1639] Nor do we find on the record here that the section 10 criteria met with respect to such forbearance, and in particular do not find it in the public interest, in the context of this item, to forbear with respect to requirements that already applied to broadband Internet access service and providers of that service prior to this Order. Rather, broadband providers remain free to seek relief from such provisions or regulations through appropriate filings with the Commissions.[1640]

531. A number of commenters' arguments are addressed on one or more of these grounds.[1641] For example, as to the first set of exclusions, we note that section 257 imposes certain obligations on the Commission without creating enforceable obligations that the Commission would apply to telecommunications carriers or telecommunications services,[1642] so we do not forbear from applying those provisions.[1643] For the same reasons, we do not forbear with respect to provisions insofar as they merely reserve state authority.[1644]

532. We further note, for example, that the immunity from liability in section 230(c) applies to providers or users of an "interactive computer service," and its application does not vary based on the classification of broadband Internet access service here.[1645] Consequently, it is not covered by the scope of forbearance in this order.[1646] We also note that the restrictions on obscene and illicit content in sections 223 and 231(to the extent enforced)[1647]—as well as the associated limitations on liability—in many cases,

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[1639] *See, e.g.*, NCTA Jan. 15, 2015 *Ex Parte* Letter at 3 (arguing against "applying Title II to increase regulatory burdens on broadband providers"); Comcast Dec. 24, 2014 *Ex Parte* Letter at 13 (arguing that if the Commission reclassifies broadband Internet access service, "it should mitigate the associated" effect "as much as possible by coupling Title II reclassification with broad forbearance from all Title II restrictions and obligations").

[1640] *See, e.g.*, 47 C.F.R. §§ 1.3, 1.53-1.59, 1.401.

[1641] In addition to those discussed below, these considerations explain, for example, why we do not grant forbearance with respect to sections 303(b), 303(r) and 316, upon which we rely for authority for our open Internet rules. *See supra* Section III.F.3.

[1642] 47 U.S.C. § 257.

[1643] *See, e.g.*, Public Knowledge Comments at 95.

[1644] *See, e.g.*, NARUC Comments at 14-15 (discussing, for example, state authority to perform ETC designations in section 214(e)(2) and reservations of certain state authority under section 253); Massachusetts DTE Comments at 8 n.4 (incorporating by reference Massachusetts DTE Reply, GN Docket No. 10-127 (filed Apr. 12, 2010) (also discussing, for example, reservation of state pole attachment authority under section 224(c) and the reservation of state authority in section 261)).

[1645] 47 U.S.C. § 230(c).

[1646] *See, e.g.*, NCTA Dec. 23, 2014 *Ex Parte* Letter at 21 (arguing that the Commission should not forbear with respect to "immunity from publisher-related liability" under section 230, which "has nothing to do with common-carrier regulation").

[1647] We note that many of the relevant provisions in these sections stem from the Child Online Protection Act (COPA), which federal courts have enjoined from being enforced. COPA amended the Communications Act by adding sections 230(d) and 231 and amending parts of sections 223(h)(2) and 230(d)–(f). *See* Child Online Protection Act, Pub. L. No. 105-277, §§ 1401–05, 112 Stat. 2681-736–2681-741 (1998). After COPA reached the Supreme Court twice, a federal court held that COPA is unconstitutional and placed a permanent injunction against its enforcement. The decision was affirmed on appeal, and petition for writ of certiorari has been denied. *See ACLU v. Reno*, 31 F. Supp.2d 473 (E.D. Pa. 1999) (enjoining the enforcement of the Act), *aff'd*, 217 F.3d 162 (3rd Cir. 2000), *vacated and remanded*, *Ashcroft v. ACLU*, 535 U.S. 564 (2002) (finding that the Act's reference to contemporary community standards on its own does not render it unconstitutional and the 3rd Circuit must consider additional matters), *aff'd*, *ACLU v. Ashcroft*, 322 F.3d 240 (3rd Cir. 2003), *aff'd and remanded*, *Ashcroft v. ACLU*, 542 U.S. 656 (2004) (instructing that the district court should update the factual record and take into account current, applicable technologies); *ACLU v. Gonzales*, 478 F. Supp.2d 775 (E.D. Pa 2007) (entering a permanent injunction

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do not vary with the classification decisions in this Order, and thus likewise are not encompassed by the forbearance in this Order.[1648] To the extent that certain of these provisions would benefit broadband providers and could instead be viewed as provisions that are newly applied to broadband providers by virtue of the classification decisions in this Order, it would better promote broadband deployment, and thus better serve the public interest, if we continue to apply those provisions.[1649] We thus find that such forbearance would not be in the public interest under section 10(a)(3).[1650]

533. Some commenters also advocate that the Commission not forbear from applying "the provisions of the Communications Assistan[ce] for Law Enforcement Act under Section 229."[1651] Section 229(a)–(d) direct the Commission to adopt rules implementing the requirements of CALEA and authorize the Commission to investigate and enforce those rules.[1652] Section 229(e) enables providers to recover certain costs of CALEA compliance.[1653] Section 229 is not, by its terms, limited to "telecommunications services" as defined by the Communication Act, and CALEA obligations already apply to broadband Internet access service.[1654] Thus, in carrying out section 229, the Commission's role already extended to broadband Internet service, and all telecommunications carriers subject to CALEA are already required to comply with all Commission rules adopted pursuant to section 229.[1655] Declining

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against enforcement of the Act after holding that it is facially unconstitutional), *aff'd*, *ACLU v. Mukasey*, 534 F.3d 181 (3rd Cir. 2008), *cert. denied*, 129 S. Ct. 1032 (2009). The Communications Decency Act (CDA) (Pub. L. No. 104-104, §§ 501–02, 110 Stat. 56, 133–36), which amended section 223 of the Communications Act, has also been overturned in part, by the Supreme Court. *See Reno v. ACLU*, 521 U.S. 844 (1997). However, the constitutionally offensive parts of the CDA were amended by the PROTECT Act, which is still good law. *See* Prosecutorial Remedies and Tools against the Exploitation of Children Today (PROTECT) Act, Pub. L. No. 108-21, § 603, 117 Stat. 650, 687 (2003).

[1648] 47 U.S.C. §§ 223, 231. As a narrow exception to this general conclusion, section 223(c)(1) conceivably could be newly applied to broadband providers by virtue of the classification decisions in this Order. 47 U.S.C. § 223(c)(1). No commenter meaningfully argues that the Commission should apply this provision to broadband providers, and that fact, coupled with the other protections that remain, persuade us that, insofar as the Commission would apply this provision, such application is not necessary for purposes of sections 10(a)(1) and (a)(2). Likewise, consistent with the tailored regulatory approach adopted in this Order, we find it in the public interest under section 10(a)(3) to forbear insofar as the Commission otherwise would newly apply that provision to a broadband provider as a result of this Order.

[1649] As examples of such provisions in Title II, *see, e.g.*, 47 U.S.C. § 223 (provisions limiting or establishing defenses for liability under that section), 47 U.S.C. § 231(provisions limiting or establishing defenses for liability under that section), 47 U.S.C. § 253 (authorizing preemption of state or local requirements restricting the provision of telecommunications services).

[1650] 47 U.S.C. § 160(a)(3).

[1651] COMPTEL Comments at 22-23.

[1652] 47 U.S.C. § 229(a)-(d).

[1653] 47 U.S.C. § 229(e).

[1654] *See generally Communications Assistance for Law Enforcement Act and Broadband Access and Services*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 14989 (2005).

[1655] *See Communications Assistance for Law Enforcement Act*, ET Docket No. 04-295, RM-10865, Second Report and Order and Memorandum Opinion and Order, 21 FCC Rcd 5360, 5394-95, para. 75 (2006) (*2006 CALEA Order*); *see also Communications Assistance for Law Enforcement Act*, CC Docket No. 97-213, Report and Order, 14 FCC Rcd 4151, 4159, para. 20 (1999) ("[W]e find that the regulations we prescribe herein apply to all telecommunications carriers as that term is defined in section 102(8) of CALEA."). While the Commission previously has suggested that section 229(b) applies only to common carriers under the Communications Act, *see*

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to forbear from applying section 229 and our associated rules is consistent with the overall approach, discussed above, of focusing on addressing newly-arising requirements flowing from our classification decision, and thus is in the public interest. Given that CALEA's statutory obligations will apply regardless of any forbearance granted by the Commission under the Communications Act,[1656] and given the lack of any substantial argument in the record in favor of forbearance from section 229, we conclude that maintaining the Commission's existing rulemaking and oversight role as established by section 229 better advances the public interest. As services and technologies evolve over time, CALEA implementation will need to evolve as well. Section 229 establishes a rulemaking and oversight role for the Commission that helps enable those future changes. If we were to forbear from section 229 (assuming *arguendo* that we could find the forbearance standard to be satisfied), we thus would frustrate the ability of CALEA implementation to evolve with technology, an outcome that we find fundamentally inconsistent with the continued applicability of CALEA itself and therefore with the public interest.

534. We also do not forbear from certain rules governing the wireless licensing process. First, our rules require applicants for licenses under our flexible use rules to designate the regulatory status of proposed services (i.e., common carrier, non-common carrier, or both) in the initial license application, and make subsequent amendment to the designation, as necessary.[1657] With regard to these rules, we find that forbearance of the regulatory status designation would result in inaccurate license information and therefore is not warranted. In particular, we conclude that such forbearance would be contrary to the public interest under section 10(a)(3).

535. Second, sections 1.933 and 1.939 of our rules, 47 C.F.R. §§ 1.933, 1.939, implementing sections 309(b) and (d)(1) of the Act, 47 U.S.C. § 309(b), (d)(1), set out processes for license applications for authorization, major modification, major amendment, substantial assignment, or transfer. Applications that involve, in whole or in part, licenses to be used for "Wireless Telecommunications Services," as defined in section 1.907 of our rules, are subject to a public notice process providing opportunity for petitions to deny, but applications that involve only "Private Wireless Services," as defined in section 1.907 of our rules are not subject to that process.

536. With regard to these rules, we find that reclassification is unlikely to trigger a different process under these rules, for two reasons. We note that mobile BIAS today is being provided using licenses that are governed under our flexible use rules (*i.e.*, under Parts 20, 22, 24, 26, and 27) and that are being used as well to provide services, such as mobile voice, already provided as CMRS.[1658] Thus, these applications have been subject to these provisions because they have also been used to provide CMRS services. To the extent applicants seek licenses for reclassified service under other parts, such as Part 101, or are otherwise not covered by the above reasoning, we find that forbearance from these procedures is not warranted, as the public notice process requirements are important to ensure that common carrier licensing serves the public interest. Accordingly, we do not find forbearance from applying these rules in the public interest under section 10(a)(3), and thus we do not forbear from application of section 309(b) and (d)(1) of the Act, or from rules 1.931, 1.933, 1.939, 22.1110, and 27.10.

2006 CALEA Order, 21 FCC Rcd at 5389, para. 66, the Commission has consistently applied CALEA's definition to all of its CALEA rules.

[1656] Under section 10, the Commission can forbear from applying certain provisions of the Communications Act when the relevant section 10(a) criteria are met, but CALEA is not itself part of the Communications Act.

[1657] *See* 47 C.F.R. §§ 22.1110, 27.10.

[1658] *See* 47 C.F.R. § 1.907.

D. Potential Objections to Our General Approach to Forbearance For Broadband Internet Access Service

537. While we address above specific arguments against forbearance as to particular provisions or requirements, we note that we also reject certain overarching concerns about our forbearance decision here. For one, we grant substantial forbearance in this item, rather than deferring such forbearance decisions to future proceedings.[1659] We are able to conclude on this record that the section 10(a) criteria are met with respect to the forbearance we grant, and taking such action here enables us to strike the right regulatory and deregulatory balance regarding broadband Internet access service, as discussed above. Under these circumstances we reject arguments that we should defer forbearance to future proceedings.[1660] Likewise, given our finding that the section 10(a) criteria are met for the forbearance adopted here, we reject generalized arguments that the scope of forbearance here should be the same as that historically granted in the CMRS context.[1661] We conclude that such overarching claims do not address distinguishing factors here, including our decision that it is in the public interest to proceed incrementally given the regulatory experience of the near-term past coupled with the Commission's responsibilities under section 706 of the 1996 Act, as discussed above.[1662] Further, because we grant substantial forbearance in this Order rather than deferring those issues to a future proceeding, we also reject concerns that the process of obtaining forbearance will be burdensome or uncertain, insofar as they are based on a presumption that such relief only would be granted via subsequent proceedings.[1663]

538. Nor are we persuaded by arguments that the adoption of interim rules or the stay of all but certain rules should be used in lieu of forbearance, since those arguments do not explain in meaningful detail what specific interim rules would be adopted or the scope of what rules would be excluded from any stay, nor how, absent forbearance, interim rules or a stay by the Commission could address requirements imposed by the Act, rather than merely by Commission regulation.[1664] To the extent that commenters' arguments instead advocate that forbearance should be interim or time-limited,[1665] under today's approach, we retain adequate authority to modify our regulatory approach

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[1659] *See, e.g.*, EFF Comments at 16-17 (The Commission's "forbearance analysis should specifically address *all* relevant Title II obligations, so as to avoid an explosion of forbearance petitions.").

[1660] *See, e.g.*, Public Knowledge et al. Comments at 95-97; Vimeo Reply at 15 n.46. Bare assertions that the record here is inadequate to justify forbearance from certain provisions from which we forbear above similarly are too conclusory to warrant deferring a decision to a future proceeding. *See, e.g.*, Letter from Mark Cooper, Director of Research, Consumer Federation of America, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1-2 (filed Jan. 7, 2015).

[1661] *See, e.g.*, Letter from Harold Feld, et al., Public Knowledge, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 20-21 (filed Dec. 19, 2014) (Public Knowledge Dec. 19, 2014 *Ex Parte* Letter).

[1662] *See generally supra* paras. 495-496; Section V.C.2.a.

[1663] *See, e.g.*, ITIF Comments at 11; Mercatus Center Reply at 12; NetCompetition Reply at 3. The posture here is distinguishable from the circumstances underlying the *Brand X* case, where a court had classified cable modem service as a telecommunications service without simultaneous forbearance of the sort we adopt here, and thus we reject arguments seeking to rely on court filings there. *See, e.g.*, Cox Reply at 10 & n.36 (quoting Petition for a Writ of Certiorari by U.S. Dept. of Justice and FCC, *FCC v. Brand X Internet Servs*., No. 04-281, at 25-26 (Aug. 27, 2004) (among other things, stating "[f]orbearance proceedings would be time-consuming and hotly contested . . . ").)); Comcast Reply at 14-15 (similar).

[1664] *See, e.g.*, Public Knowledge Comments at 95-97; Public Knowledge Dec. 19, 2014 *Ex Parte* Letter at 21-22; Letter from Marvin Ammori to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 5 (filed Dec. 19, 2014) (Ammori Dec. 19, 2014 *Ex Parte* Letter).

[1665] *See, e.g.*, Public Knowledge Dec. 19, 2014 *Ex Parte* Letter at 22.

in the future, should circumstances warrant. We thus are not persuaded that there is any material, incremental advantage or benefit to adopting forbearance on an interim or time-limited basis.

539. We also reject claims that the Commission cannot grant forbearance here because it did not provide adequate notice and an opportunity for comment.[1666] We need not and do not address here whether forbearance is, in all cases, informal rulemaking, because in this instance we have, in fact, proceeded via rulemaking and provided sufficient notice and an opportunity to comment in that regard.[1667] Section 553(b) and (c) of the APA requires agencies to give public notice of a proposed rulemaking that includes "either the terms or substance of the proposed rule or a description of the subjects and issues involved" and to give interested parties an opportunity to submit comments on the proposal.[1668] The notice "need not specify every precise proposal which [the agency] may ultimately adopt as a rule"; it need only "be sufficient to fairly apprise interested parties of the issues involved."[1669] Moreover, the APA's notice requirements are satisfied where the final rule is a "logical outgrowth" of the actions proposed.[1670] As long as parties should have anticipated that the rule ultimately adopted was possible, it is considered a "logical outgrowth" of the original proposal, and there is no violation of the APA's notice requirements.[1671]

[1666] *See, e.g.*, Letter from Daniel Berninger, founder, VCXC, et al., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 5 (filed Jan. 22, 2015); Full Service Network/TruConnect Feb. 3, 2015 *Ex Parte* Letter at 6-11. As discussed above, we also reject other asserted APA violations. *See supra* Section V.A.

[1667] As noted above, a recent court case, seemingly in dicta, suggested that forbearance is informal rulemaking, while the Commission has not expressly resolved that question. *Compare Verizon v. FCC*, 770 F.3d 961, 966-67 (D.C. Cir. 2014) *with, e.g.*, *Petition To Establish Procedural Requirements To Govern Proceedings For Forbearance Under Section 10 Of The Communications Act Of 1934, As Amended*, WC Docket No. 07-267, Report and Order, 24 FCC Rcd 9543, 9554, para. 19 n.72, para. 20 (2009). We need not and do not address that broader question here.

[1668] 5 U.S.C. §§ 553(b)-(c).

[1669] *Nuvio Corp. v. FCC*, 473 F.3d 302, 310 (D.C. Cir. 2006) (citing *Action for Children's Television v. FCC*, 564 F.2d 458, 470 (D.C. Cir. 1977) (internal quotation marks and citations omitted)).

[1670] *See PSC of DC v. FCC*, 906 F.2d 713, 717 (D.C. Cir. 1990).

[1671] *See Northeast Maryland Waste Disposal Authority v. EPA*, 358 F.3d 936, 951-52 (D.C. Cir. 2004) (discussing APA notice requirements and the "logical outgrowth" test). The Commission has acknowledged this standard in the past, even if using slightly different wording to the same effect. *See, e.g., Rural Call Completion*, WC Docket No. 13-39, Order on Reconsideration, 29 FCC Rcd 14026, 14036, para. 26 (2014) ("As long as parties could have anticipated that the rule ultimately adopted was possible, it is considered a 'logical outgrowth' of the original proposal, and there is no violation of the APA's notice requirements.").

540. Those notice standards are satisfied with respect to the forbearance adopted here. The *2014 Open Internet NPRM* observed:

> If the Commission were to reclassify broadband Internet access service as described above or classify a separate broadband service provided to edge providers as a "telecommunications service," such a service would then be subject to all of the requirements of the Act and Commission rules that would flow from the classification of a service as a telecommunications service or a common carrier service.[1672]

Citing section 10 of the Act, the Commission then sought comment "on the extent to which forbearance from certain provisions of the Act or our rules would be justified" should the Commission adopt such an approach "in order to strike the right balance between minimizing the regulatory burden on providers and ensuring that the public interest is served."[1673] "For mobile broadband services," the Commission also sought "comment on the extent to which forbearance should apply, if the Commission were to classify mobile broadband Internet access service as a CMRS service subject to Title II."[1674] Collectively, the Commission thus provided notice of possible forbearance as to any provision of the Act or Commission rules triggered by the classification of broadband Internet access service of the sort we adopt in this Order.[1675] The forbearance we grant here from applying certain provisions and regulations newly triggered by our classification decisions in order to strike the right regulatory balance for broadband Internet access services consistent with the objective of preserving and protecting Internet openness is squarely within that scope of notice provided by the *2014 Open Internet NPRM*.

541. We also view as misguided complaints about the potential for our forbearance decisions to be challenged in court or reversed in the future by the Commission.[1676] Having concluded that broadband Internet access service is a telecommunications service,[1677] certain legal consequences under the Act flow from that by default. We grant in this order the substantial forbearance from those provision and other Commission regulations to the extent that we find warranted at this time under the section 10

[1672] *2014 Open Internet NPRM*, 29 FCC Rcd at 5615-16, para. 153.

[1673] *Id*. The Commission further sought comment on "which provisions should be exempt from forbearance and which should receive it" based on whether such action would "protect and promote Internet openness." *Id*. at 5616, para. 154. These are the factors that the Commission did, in fact, use in evaluating the section 10(a) criteria and deciding whether and how much forbearance to grant here. *See generally supra* Sections V.A-C. We thus disagree with the dissent's suggestion that the notice provided by the Commission was inadequate in this regard. *See* Pai Dissent at 27-28.

[1674] *Id*. at 5616, para. 155.

[1675] *See also, e.g.*, *id.* at 5612-13, para. 148 ("For either of these [classification] possibilities, we seek comment on whether and how the Commission should exercise its authority under section 10 (or section 332(c)(1) for mobile services) to forbear from specific obligations under the Act and Commission rules that would flow from the classification of a service as telecommunications service."). Within that scope, the Commission also sought more detailed comment on specific aspects of the possible forbearance it might adopt, discussing similar questions raised in the *2010 Broadband Classification NOI*, particular statutory provisions from which the Commission might not forbear, and particular approaches the Commission might use to evaluating forbearance. *Id*. at 5616, para. 154. Moreover, as discussed in the preceding sections above, the *2014 Open Internet NPRM* yielded a robust record regarding forbearance.

[1676] *See, e.g.*, AT&T Comments at 67; Cox Comments at 35-36; Ericsson Comments at 11- 12; Comcast Reply at 14-17; Cox Reply at 10-11.

[1677] *See supra* Section IV.

framework. We thereby provide broadband providers significant regulatory certainty.[1678] We thus are not persuaded to alter our approach to forbearance based on these arguments.

542. We recognize that in our approach to forbearance for broadband Internet access service above, we are not first exhaustively determining provision-by-provision and regulation-by-regulation whether and how particular provisions and rules apply to this service. The Commission has broad discretion whether to issue a declaratory ruling, which is what would be entailed by such an undertaking.[1679] We exercise our discretion not to do so here, except to the limited extent necessary to address arguments in the record regarding specific requirements.[1680] For one, the Commission need not resolve whether or how a provision or regulation applies before evaluating the section 10(a) criteria—rather, it can conduct that evaluation and, if warranted, grant forbearance within the scope of its section 10 authority assuming *arguendo* that the provisions or regulations apply.[1681] In addition, as discussed in greater detail above, the Commission is proceeding incrementally here.[1682] As the D.C. Circuit has recognized, within the statutory framework that Congress established, the Commission "possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband."[1683] Thus, to achieve the balance of regulatory and deregulatory policies adopted here for broadband Internet access service, we need not—and thus do not—first resolve potentially complex and/or disputed interpretations and applications of the Act and Commission rules that could create precedent with unanticipated consequences for other services beyond the scope of this proceeding,

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[1678] Perfect regulatory certainty would not be feasible under any classification. For example, even just as to rules adopted under section 706 of the 1996 Act parties theoretically could raise judicial challenges as to the adequacy of the Commission's rules in meeting the objectives of section 706 and a future Commission likewise might elect to modify those rules.

[1679] *See Yale Broadcasting Co. v. FCC*, 478 F.2d 594, 602 (D.C. Cir. 1973); 5 U.S.C. § 554(e); 47 C.F.R. § 1.2(a).

[1680] *See, e.g.*, Vonage Reply at 32 ("Rather than debate each individual section of Title II in its forbearance analysis, the Commission could limit its Title II authority to those provisions necessary to adopt and enforce Open Internet rules and forbear from applying all other provisions and rules under Title II that do not bear on the Open Internet rules originally codified in 2010.").

[1681] *See, e.g.*, *AT&T v. FCC*, 452 F.3d 830, 836-37 (D.C. Cir. 2006) ("the Commission may not refuse to consider a petition's merits solely because the petition seeks forbearance from uncertain or hypothetical regulatory obligations"); *Broadband Classification NOI*, 25 FCC Rcd at 7896, para. 70 n.187 ("Section 10 allows the Commission to consider forbearance from requirements that do not currently apply or may not apply even in the absence of forbearance."); *Feature Group IP Petition for Forbearance From Section 251(g) of the Communications Act and Sections 51.701(b)(1) and 69.5(b) of the Commission's Rules*, WC Docket No. 07-256, Order on Reconsideration, 25 FCC Rcd 8867, 8874, para. 12 & n.43 (2010) (rejecting arguments that the Commission should have clarified whether certain requirements applied before addressing a forbearance request, and further rejecting the claim that this approach was in consistent with *AT&T v. FCC*, explaining instead that "[i]n *AT&T v. FCC*, the Court of Appeals for the District of Columbia Circuit faulted the Commission for failing to conduct the statutory analysis required by section 10 of the Act," while "[h]ere, by contrast, the Commission conducted the requisite analysis and concluded that the statutory forbearance criteria were not met"); *Feature Group IP Petition for Forbearance From Section 251(g) of the Communications Act and Sections 51.701(b)(1) and 69.5(b) of the Commission's Rules*, WC Docket No. 07-256, Memorandum Opinion and Order, 24 FCC Rcd 1571, 1574, para. 6 (2009) ("For the purposes of conducting our analysis of this petition, we assume, *arguendo*, that the foundation of Feature Group IP's petition is valid. That is, we assume that section 251(g), the exception clause in section 51.701(b)(1), and section 69.5(b) of the Commission's rules apply to voice-embedded Internet communications, with the effect that at least in some circumstances, LECs may receive access charges.").

[1682] *See supra* paras. 495-496; Section V.C.2.a.

[1683] *Ad Hoc*, 572 F.3d at 906-07.

and which would not alter the ultimate regulatory outcome in this Order in any event.[1684]

VI. CONSTITUTIONAL CONSIDERATIONS

543. The actions we take today are fully consistent with the Constitution. Some commenters contend that the open Internet rules burden broadband providers' First Amendment rights and effect uncompensated takings of private property under the Fifth Amendment. We examine these arguments below and find them unfounded.

A. First Amendment

1. Free Speech Rights

544. The rules we adopt today do not curtail broadband providers' free speech rights. When engaged in broadband Internet access services, broadband providers are not speakers, but rather serve as conduits for the speech of others. The manner in which broadband providers operate their networks does not rise to the level of speech protected by the First Amendment. As telecommunications services, broadband Internet access services, by definition, involve transmission of network users' speech without change in form or content, so open Internet rules do not implicate providers' free speech rights. And even if broadband providers were considered speakers with respect to these services, the rules we adopt today are tailored to an important government interest—protecting and promoting the open Internet and the virtuous cycle of broadband deployment—so as to ensure they would survive intermediate scrutiny.

545. This is not to say that we are indifferent to matters of free speech on the Internet. To the contrary, our rules serve First Amendment interests of the highest order, promoting "the widest possible dissemination of information from diverse and antagonistic sources" and "assuring that the public has access to a multiplicity of information sources" by preserving an open Internet.[1685] We merely acknowledge that the free speech interests we advance today do not inhere in broadband providers with respect to their provision of broadband Internet access services.

546. Some commenters contend that because broadband providers distribute their own and third-party content to customers, rules that govern the transmission of Internet content over broadband networks violate their free speech rights.[1686] CenturyLink and others compare the operation of broadband Internet access service to "requiring a cable operator to carry all broadcast stations," and contend that the rules adopted today "displace access service providers' editorial control over their networks" which would otherwise constitute protected speech under the First Amendment.[1687] Other commenters respond that broadband providers are not engaged in speech when providing broadband Internet access services, so they are not entitled to First Amendment protections in their operation of these services.[1688] Consistent with our determination in the *2010 Open Internet Order*,[1689] we find that when broadband providers offer broadband Internet access services, they act as conduits for the speech of others, not as speakers themselves.

[1684] As noted earlier in this paragraph, we assume *arguendo* that these provisions apply and nonetheless find forbearance warranted as discussed above.

[1685] *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622, 663 (1994) (*Turner I*).

[1686] CenturyLink Comments at 61–64; Verizon Comments at 67; Free State Reply at 20.

[1687] CenturyLink Comments at 63–64; *see also* Verizon Comments at 67. CenturyLink also argues that broadband Internet access service is comparable to requiring a "parade organizer to admit all applicants on a lottery basis" and "a newspaper to carry replies to its editorials." CenturyLink Comments at 64.

[1688] CDT Comments at 28–30; Barbara Cherry Reply at 21.

[1689] *2010 Open Internet Order*, 25 FCC Rcd at 17982, para. 141.

547. Claiming free speech protections under the First Amendment necessarily involves demonstrating status as a speaker—absent speech, such rights do not attach. In determining the limits of the First Amendment's protections for courses of conduct, the Supreme Court has "extended First Amendment protections only to conduct that is inherently expressive."[1690] To determine whether an actor's conduct possesses "sufficient communicative elements to bring the First Amendment into play," the Supreme Court has asked whether "[a]n intent to convey a particularized message was present and [whether] the likelihood was great that the message would be understood by those who viewed it."[1691]

548. Broadband providers' conduct with respect to broadband Internet access services does not satisfy this test, and analogies to other forms of media are unavailing. CenturyLink and others compare their provision of broadband service to the operation of a cable television system, and point out that the Supreme Court has determined that cable programmers and cable operators engage in editorial discretion protected by the First Amendment.[1692] As a factual matter, broadband Internet access services are nothing like the cable service at issue in *Turner I*. In finding that cable programmers and cable operators are entitled to First Amendment protection, the *Turner I* court began with the uncontested assertion that "cable programmers and operators engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment."[1693] The court went on to explain that "cable programmers and operators 'see[k] to communicate messages on a wide variety of topics and in a wide variety of formats'" through "original programming or by exercising editorial discretion over which stations or programs to include in its repertoire."[1694] Cable operators thus engage in protected speech when they both *engage in* and *transmit* speech with the intent to convey a message either through their own programming directly or through contracting with other programmers for placement in a cable package.

549. Broadband providers, however, display no such intent to convey a message in their provision of broadband Internet access services—they do not engage in speech themselves but serve as a conduit for the speech of others. The record reflects that broadband providers exercise little control over the content which users access on the Internet.[1695] Broadband providers represent that their services allow Internet end users to access all or substantially all content on the Internet, without alteration, blocking, or

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[1690] *Rumsfeld v. Forum for Academic & Institutional Rights, Inc.*, 547 U.S. 47, 66 (2006); *see also United States v. O'Brien*, 391 U.S. 367, 376 (1968) ("We cannot accept the view that an apparently limitless variety of conduct can be labeled 'speech' whenever the person engaging in the conduct intends thereby to express an idea.").

[1691] *Texas v. Johnson*, 491 U.S. 397, 404 (1989) (quoting *Spence v. Washington*, 418 U.S. 405, 410-11 (1974) (per curiam)).

[1692] CenturyLink Comments at 62–64; Verizon Comments at 67.

[1693] *Turner I*, 512 U.S. at 636.

[1694] *Id.* at 636 (alteration in original) (citation omitted). Likewise, while a newspaper publisher chooses which material to publish, broadband providers facilitate access to all or substantially all Internet endpoints. *See Miami Herald Publishing Co. v. Tornillo*, 418 U.S. 241, 257 (1974) ("A newspaper is more than a passive receptacle or conduit for news, comment, and advertising. The choice of material to go into a newspaper, and the decisions made as to limitations on the size and content of the paper, . . . constitute the exercise of editorial control and judgment." (quoting *New York Times v. Sullivan*, 376 U.S. 254, 279 (1964)). In contrast, broadband Internet access services more closely resemble the "conduit for news, comment, and advertising" from which the Court distinguishes newspaper publishing. *See id.* at 258.

[1695] Verizon Comments at 3; CenturyLink Comments at 15; Charter Comments at 31.

editorial intervention.[1696] End users, in turn, expect that they can obtain access to all content available on the Internet, without the editorial intervention of their broadband provider.[1697] While these characteristics certainly involve transmission of others' speech, the accessed speech is not edited or controlled by the broadband provider but is directed by the end user.[1698] In providing these services, then, broadband providers serve as mere conduits for the messages of others, not as agents exercising editorial discretion subject to First Amendment protections.[1699]

550. Moreover, broadband is not subject to the same limited carriage decisions that characterize cable systems—the Internet was designed as a decentralized "network of networks" which is capable of delivering an unlimited variety of content, as chosen by the end user. In contrast, the *Turner I* court emphasized that the rules under consideration in that case regulated cable speech by "reduc[ing] the number of channels over which cable operators exercise unfettered control" and "render[ing] it more difficult for cable programmers to compete for carriage on the limited channels remaining."[1700] Neither of these deprivations of editorial discretion translates to the Internet as a content platform. The arrival of one speaker to the network does not reduce access to competing speakers; nor are broadband providers limited by our rules in the direct exercise of their free speech rights. Lacking the exercise of editorial control and an intent to convey a particularized message, we find that our rules regulate the unexpressive transmission of others' speech over broadband Internet access services, not the speech of broadband providers. As our rules merely affect what broadband providers "must *do* . . . not what they may or may not *say*," the provision of broadband Internet access services falls outside the protections of the First Amendment outlined by the court in *Turner I*.[1701]

[1696] *See, e.g.*, Verizon Comments at 2 ("Verizon has committed to its customers to provide them Internet access that let them go where they want and do what they want online, using their choice of compatible applications and devices. Other broadband providers have similarly committed to supporting the open Internet.").

[1697] *See, e.g.*, CTIA Comments at 28 ("Mobile broadband customers fully expect access to all lawful content and applications, and providers have strong incentives to meet these expectations. . . .").

[1698] To be sure, broadband providers engage in some reasonable network management designed to protect their networks from malicious content and to relieve congestion, but these practices bear little resemblance to the editorial discretion exercised by cable operators in choosing programming for their systems. In the same way, broadband providers do not operate their networks in ways that are analogous to parade organizers or "modern day printing presses" as Verizon contends. Verizon Comments at 67. Comparisons to the "right of reply" statutes at issue in *Miami Herald Publ'g Co. v. Tornillo*, 418 U.S. 241, 257 (1974) are similarly misplaced. There, Florida's "right of reply" law unconstitutionally burdened the paper's "exercise of editorial control and judgment," made all the more salient by the requirement that political candidates receive "equal space" in a fairly limited medium. *Id.* at 243. Broadband Internet access services are not similarly limited—access to one edge provider does not displace another.

[1699] *See* Stuart Minor Benjamin, *Transmitting, Editing, and Communicating: Determining What "The Freedom Of Speech" Encompasses*, 60 Duke L.J. 1673, 1685 (2011) (describing how the transportation of First Amendment-protected materials "from one user to another" does not transform the delivery company into a speaker for First Amendment purposes).

[1700] *Turner I*, 512 U.S. at 637.

[1701] *Rumsfeld v. Forum for Academic & Institutional Rights, Inc*. 547 U.S. 47, 64 (2006) (*FAIR)*. We further conclude that broadband providers' conduct is not sufficiently expressive to warrant First Amendment protection, as the provision of broadband Internet access services is not "inherently expressive," but would require significant explanatory speech to acquire any characteristics of speech. *See id.* at 65-66. We recognize that in two cases, federal district courts have concluded that the provision of broadband service is "speech" protected by the First Amendment. In *Itasca*, the district court reasoned that broadband providers were analogous to cable and satellite television companies, which are protected by the First Amendment. *Ill. Bell Tel. Co. v. Vill. Of Itasca*, 503 F. Supp. 2d 928, 947–49 (N.D. Ill 2007). And in *Broward County*, the district court determined that the transmission function provided by broadband service could not be separated from the content of the speech being transmitted.

(continued….)

551. Our conclusion that broadband Internet access service providers act as conduits rather than speakers holds true regardless of how they are classified under the Act.[1702] But we think this is particularly evident given our classification of broadband Internet access services as telecommunications services subject to Title II. The Act defines "telecommunications" as the "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[1703] The Act also provides for common carrier treatment of any provider to the extent it is engaged in providing telecommunications services.[1704] In the communications context, common carriage requires that end users "communicate or transmit intelligence of their own design and choosing."[1705] In Section IV, we have found that broadband Internet access services fall within the definitions of "telecommunications" and "telecommunications services" subject to Title II common carrier regulation.[1706] By definition, then, the provision of telecommunications service does not involve the exercise of editorial control or judgment.[1707]

552. We also take note that, in other contexts, broadband providers have claimed immunity from copyright violations and other liability for material distributed on their networks because they lack control over what end users transmit and receive.[1708] Broadband providers are not subject to subpoena in

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Comcast Cablevision of Broward Cnty., Inc. v. Broward Cnty., 124 F. Supp. 2d 685, 691–92 (S.D. Fla. 2000). For the reasons stated, we disagree with the reasoning of those decisions.

[1702] *See 2010 Open Internet Order*, 25 FCC Rcd at 17982, para. 141.

[1703] 47 U.S.C. § 153(43).

[1704] 47 U.S.C. § 153(44).

[1705] *Midwest Video II*, 440 U.S. at 701 ("A common-carrier service in the communications context is one that 'makes a public offering to provide, for hire, facilities by wire or radio whereby all members of the public who choose to employ such facilities may communicate or transmit intelligence of their own design and choosing . . . .'") (quoting *Industrial Relocation Service*, 5 FCC 2d 197, 202, para. 19 (1966)); *see also NARUC v. FCC*, 533 F.2d 601, 609 (D.C. Cir. 1976) (*NARUC II*).

[1706] *See supra* Section IV.

[1707] We also note that the requirement under *Computer II* that facilities-based providers of "enhanced services" separate out and offer on a common carrier basis the "basic service" transmission component underlying their enhanced services, a requirement reflected in the 1996 Act's distinction between "telecommunications services" and "information services" was never held to raise First Amendment concerns. *See Turner I*, 512 U.S. at 684 (assuming that Congress could have imposed common carrier obligations on cable operators without raising First Amendment concerns) (O'Connor, J., dissenting). The Supreme Court has acknowledged the distinction between common carriers and entities with robust First Amendment rights in numerous contexts. *See, e.g.*, *FCC v. League of Women Voters*, 468 U.S. 364, 378 (1984) ("Unlike common carriers, broadcasters are 'entitled under the First Amendment to exercise the widest journalistic freedom consistent with their public [duties].'"); *Denver Area Educ. Telecoms. Consortium v. FCC*, 518 U.S. 727, 739 (1996) (plurality opinion) (distinguishing between common carriers' and editors' rights under the First Amendment); *Midwest Video II*, 440 at 709 n.19 (1979) (ruling on other grounds, but acknowledging that First Amendment issues implicated in compelling cable operators to provide common carriage of public-originated transmissions are "not frivolous").

[1708] *See* 17 U.S.C. § 512(a) (a "service provider shall not be liable . . . for infringement of copyright by reason of the provider's transmitting, routing, or providing connections for" material distributed by others on its network); *see also Verizon Online Terms of Service* 12(5), http://www.verizon.com/idc/groups/public/documents/adacct/verizon_internet_tos_121614.pdf ("Verizon assumes no responsibility for the accuracy, integrity, quality completeness, usefulness or value of any Content, advice or opinions contained in any emails, message boards, chat rooms or community services, Verizon Web Sites or in any other public services or social networks, and that Verizon does not endorse any advice or opinion contained therein,
(continued….)

a copyright infringement case because as a provider it "act[s] as a mere conduit for the transmission of information sent by others."[1709] Acknowledging the unexpressive nature of their transmission function, Congress has also exempted broadband providers from defamation liability arising from content provided by other information content providers on the Internet.[1710] Given the technical characteristics of broadband as a medium and the representations of broadband providers with respect to their services, we find it implausible that broadband providers could be understood to being conveying a particularized message in the provision of broadband Internet access service.

553. Even if open Internet rules were construed to implicate broadband providers' rights as speakers, our rules would not violate the First Amendment because they would be considered content-neutral regulations which easily satisfy intermediate scrutiny. In determining whether a regulation is content-based or content-neutral, the "principal inquiry . . . is whether the government adopted a regulation of speech because of [agreement or] disagreement with the message it conveys."[1711] The open Internet rules adopted today apply independent of content or viewpoint. Instead, they are triggered by a broadband provider offering broadband Internet access services. The rules are structured to operate in such a way that no speaker's message is either favored or disfavored, i.e. content neutral.

554. A content-neutral regulation will survive intermediate scrutiny if "it furthers an important or substantial government interest . . . unrelated to the suppression of free expression," and if "the means chosen" to achieve that interest "do not burden substantially more speech than is necessary."[1712] The government interests underlying this Order are clear and numerous. Congress has expressly tasked the Commission with "encourag[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans,"[1713] and has elsewhere explained that it is the policy of the United States to "promote the continued development of the Internet and other interactive computer services and other interactive media."[1714] Additionally, the *Verizon* court accepted the Commission's finding that "Internet openness fosters the edge-provider innovation that drives [the] 'virtuous cycle.'"[1715] As discussed above, this Order pursues these government interests by preserving an open Internet to encourage competition and remove impediments to infrastructure investment, while enabling consumer choice, end-user control, free expression, and the freedom to innovate without permission.

555. Indeed, rather than burdening free speech, the rules we adopt today ensure that the Internet promotes speech by ensuring a level playing field for a wide variety of speakers who might otherwise be disadvantaged. As *Turner I* affirmed "assuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes values central to the

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whether or not Verizon provides such service(s). Verizon does not monitor or control such services, although we reserve the right to do so.") (last visited Feb. 2, 2015).

[1709] *Recording Indus. Ass'n of Am. v. Verizon Internet Servs., Inc.*, 351 F.3d 1229, 1237 (D.C. Cir. 2003); *see also Charter Communications, Inc.*, 393 F.3d 771, 777 (8th Cir. 2005) (no subpoena because broadband provider is "limited to acting as a conduit").

[1710] 47 U.S.C. § 230(c)(1) ("[N]o provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.").

[1711] *Turner I*, 512 U.S. at 642 (quoting *Ward v. Rock Against Racism*, 491 U.S. 781, 791 (1989)).

[1712] *Id.* at 662 (internal quotation marks omitted).

[1713] 47 U.S.C. § 1302(a).

[1714] 47 U.S.C. § 230(b)(1).

[1715] *Verizon*, 740 F.3d at 644.

First Amendment."[1716] Based on clear legislative interest in furthering broadband deployment and the paramount government interest in assuring that the public has access to a multiplicity of information sources, these interests clearly qualify as substantial under intermediate scrutiny.

556. Additionally, the rules here are sufficiently tailored to accomplish these government interests. The effect on speech imposed by these rules is minimal. The rules do not "burden substantially more speech than necessary" because they do not burden any identifiable speech—the rules we adopt today apply only to broadband providers' conduct with regard to their broadband Internet access services. Providers remain free to engage in the full panoply of protected speech afforded to any other speaker. They are free to offer "edited" services and engage in expressive conduct through the provision of other data services, as well.

557. Verizon also contends that the open Internet rules are impermissible under *Citizens United* because they result in differential treatment of providers of broadband service and other connected IP services.[1717] Our rules governing the practices of broadband providers differ markedly from the statutory restrictions on political speech at issue in *Citizens United*. Our rules do not impact core political speech, where the "First Amendment has its fullest and most urgent application."[1718] By contrast, the open Internet rules apply only to the provision of broadband services in a commercial context, so reliance on the strict scrutiny standards applied in *Citizens United* is inapt.[1719] As described above, intermediate scrutiny under *Turner I* would be the controlling standard of review if broadband providers were found to be speakers.[1720] If a court were to find differential treatment under our rules, though, they would be justified under *Turner I* because speaker-based distinctions can be deemed permissible so long as they are "'justified by some special characteristic of' the particular medium being regulated.'"[1721] The ability and incentive of broadband providers to impose artificial scarcity and pick winners and losers in the provision of their last-mile broadband services is just such a special characteristic justifying differential treatment.[1722]

558. In sum, the rules we adopt today do not unconstitutionally burden any of the First Amendment rights held by broadband providers. Broadband providers are conduits, not speakers, with

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[1716] *Turner I*, 512 U.S. at 663. The *Turner I* Court continued: "Indeed, it has long been a basic tenet of national communications policy that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public." *Id.* (internal quotation marks omitted). *See also FCC v. Nat'l Citizens Comm. for Broad.,* 436 U.S. 775, 795 (1978) (*NCCB*) (quoting *Associated Press v. United States*, 326 U.S. 1, 20 (1945)).

[1717] Verizon Comments at 67.

[1718] *Citizens United v. Fed. Elec. Comm'n*, 558 U.S. 310, 339 (2010) (quoting *Eu v. San Francisco County Democratic Central Comm.*, 489 U.S. 214, 223 (1989) (quoting *Monitor Patriot Co. v. Roy*, 401 U.S. 265, 272 (1971))) (internal quotation marks omitted).

[1719] *See Time Warner Cable, Inc. v. FCC*, 729 F.3d 137, 159-60 (2d Cir. 2013) ("In the absence of clearer direction from the Supreme Court, we will not ourselves assume that *Citizens United* implicitly reversed *Turner I* to compel strict scrutiny of all speaker-based preferences, even outside the political speech context.").

[1720] *See supra* para. 548.

[1721] *Turner I*, 512 U.S. at 660–61 (quoting *Minneapolis Star & Tribune Co. v. Minn. Comm'r of Revenue*, 460 U.S. 575, 585 (1983)).

[1722] *See Verizon*, 740 F.3d at 646 (finding that "[t]he Commission also convincingly detailed how broadband providers' position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers"); *cf. BellSouth Corp. v. FCC*, 144 F.3d 58, 69 (1998) (applying intermediate scrutiny to differential treatment of Bell Operating Companies under 47 U.S.C. § 274 with regard to electronic publishing owing to special characteristics).

respect to broadband Internet access services. Even if they were engaged in speech with respect to these services, the rules we adopt today are tailored to the important government interest in maintaining an open Internet as a platform for expression, among other things.

2. Compelled Disclosure

559. The disclosure requirements adopted as a part of our transparency rule also fall well within the confines of the First Amendment. As explained above, these required disclosures serve important government purposes, ensuring that end users and edge providers have accurate and accessible information about broadband providers' services. This information is central both to preventing consumer deception and to the operation of the virtuous cycle of innovation, consumer demand, and broadband deployment.

560. CenturyLink contends that the disclosure requirements under the transparency rule violate the First Amendment by compelling speech without a reasonable basis.[1723] They argue that the Commission has not established a potential problem which these disclosures are necessary to remedy and that this is fatal to the rules under the First Amendment. This argument misapprehends both the factual justification for the transparency rules and the constitutional legal standard against which any disclosure requirements would be evaluated by the courts.

561. The Supreme Court has made plain in *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio* that the government has broad discretion in requiring the disclosure of information to prevent consumer deception and ensure complete information in the marketplace.[1724] Under *Zauderer's* rational basis test, mandatory factual disclosures will be sustained "as long as disclosure requirements are reasonably related to the State's interest in preventing deception to consumers."[1725] As the Court observed, "the First Amendment interests implicated by disclosure requirements are substantially weaker than those at stake when speech is actually suppressed;"[1726] the speaker's interest is "minimal."[1727] The D.C. Circuit recently reaffirmed these principles in *American Meat Institute v. United States Department of Agriculture*, an *en banc* decision in which the Court joined the First and Second Circuit Courts of Appeals in recognizing that other government interests beyond preventing consumer deception may be invoked to sustain a disclosure mandate under *Zauderer*.[1728]

[1723] CenturyLink Comments at 59–61.

[1724] *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*, 471 U.S. 626, 651 (1985) (*Zauderer*). CenturyLink's reliance on *Riley v. National Federation of the Blind of North Carolina, Inc.* for analyzing the constitutionality of the transparency rule is inapt. That case concerned mandatory disclosure of the percentage of charitable contributions used toward charity, but the transparency rule requires disclosure of purely commercial terms pertaining to the provision of broadband services. *See Riley v. National Federation of the Blind of North Carolina, Inc.*, 487 U.S. 781, 796 n.9 (1988) ("Purely commercial speech is more susceptible to compelled disclosure requirements.").

[1725] *Zauderer*, 471 U.S. at 651.

[1726] *Id.* at 652 n.14.

[1727] *Id.* at 651.

[1728] *American Meat Institute v. US Dept. of Agriculture*, 760 F.3d 18, 22 (D.C. Cir. 2014) ("All told, *Zauderer's* characterization of the speaker's interest in opposing forced disclosure of [factual] information as 'minimal' seems inherently applicable beyond the problem of deception, as other circuits have found.") (citing *N.Y. State Rest. Ass'n v. N.Y. City Bd. Of Health*, 556 F.3d 114, 133 (2d Cir. 2009); *Pharm. Care Mgmt. Ass'n v. Rowe*, 429 F.3d 294, 310 (1st Cir. 2005) (Torruella, J.); *id.* at 316 (Boudin, C.J. & Dyk, J.); *id.* at 297–98 (per curiam) (explaining that the opinion of the Chief Judge Boudin and Judge Dyk is controlling on the First Amendment issue); *Nat'l Elec. Mafrs. Ass'n v. Sorrell*, 272 F.3d 104, 113-15 (2d Cir. 2001)).

562. The transparency rule clearly passes muster under these precedents. Preventing consumer deception in the broadband Internet access services market lies at the heart of the transparency rule we adopt today. The Commission has found that broadband providers have the incentive and ability to engage in harmful practices, as discussed above in Section III.B.2.[1729] In the *2010 Open Internet Order*, we found that "disclosure ensures that end users can make informed choices regarding the purchase and use of broadband service."[1730] Since the original transparency rule was promulgated, the Commission has received hundreds of complaints regarding advertised rates, slow or congested services, data caps, and other potentially deceptive practices.[1731] Similarly, the enhancements to the transparency rule which we adopt today are designed to prevent confusion to all consumers of the broadband providers' services—end-users and edge providers alike. Tailored disclosures promise to provide a metric against which these customers can judge whether their broadband connections satisfy the speeds, bandwidth, and other terms advertised by broadband providers.

563. Further buttressing these disclosure requirements are numerous other government interests permitted under *American Meat Institute*. As acknowledged by the D.C. Circuit in *Verizon*, broadband providers have both the economic incentive and the technical ability to interfere with third-party edge providers' services by imposing discriminatory restrictions on access and priority.[1732] The disclosures we require under today's transparency rule serve to curb those incentives by shedding light on the business practices of broadband providers.[1733] Accurate information about broadband provider practices encourages the competition, innovation, and high-quality services that drive consumer demand and broadband investment and deployment.[1734] Tailored disclosures further amplify these positive effects by ensuring that edge providers have critical network information necessary to develop innovative new applications and services and that end users have confidence in the broadband providers' network management and business practices.[1735] In sum, the other government interests supporting the rules in addition to preventing consumer deception—preserving an open Internet to encourage competition and remove impediments to infrastructure investment, while enabling consumer choice, end-user control, free expression, and the freedom to innovate without permission—are substantial and justify our transparency requirements.

B. Fifth Amendment Takings

564. The open Internet rules also present no cognizable claims under the Fifth Amendment's Takings Clause. Today's decision simply identifies as common carriage the services that broadband Internet access service providers already offer in a manner that carries with it certain statutory duties. Regulatory enforcement of those duties has never been held to raise takings concerns. Correspondingly, our rules do not rise to the level of a *per* se taking because they do not grant third parties a right to physical occupation of the broadband providers' property. Finally, they do not constitute a regulatory taking because they actually enhance the value of broadband networks by protecting the virtuous cycle that drives innovation, user adoption, and infrastructure investment.

[1729] *See supra* Section III.B.2.

[1730] *2010 Open Internet Order*, 25 FCC Rcd at 17936, para. 53.

[1731] *2014 Open Internet NPRM*, 29 FCC Rcd at 5586, para. 69.

[1732] *Verizon*, 740 F.3d at 644–45.

[1733] *2014 Open Internet NPRM*, 29 FCC Rcd at 5585, para 66 ("'Sunlight,' as Justice Brandeis has explained, 'is . . . the best of disinfectants.'") (citing L. Brandeis, Other People's Money, Chapter 5 (National Home Library Foundation ed. 1933), http://www.law.louisville.edu/library/collections/brandeis/node/196.

[1734] *2014 Open Internet NPRM*, 29 FCC Rcd at 5585, para. 66.

[1735] *Id.* at 5580, para. 53.

565. As an initial matter, we note that our reclassification of broadband Internet access service does not result from compelling the common carriage offering of those services, contrary to the claims of some broadband providers.[1736] Rather, our decision simply identifies as common carriage the services that broadband Internet access service providers already voluntarily offer in a manner that, under the Communications Act, carries with it certain statutory duties, which have never been held to raise takings concerns. Today's Order recognizes that broadband Internet access service is a telecommunications service under Title II of the Act.[1737] While certain common carriage obligations attach to recognition of this fact, those requirements operate by virtue of the statutory structure we interpret, not in service to a discretionary "policy goal the Commission seeks to advance."[1738] Such statutory obligations have never before posed takings issues, and we conclude that today's Order, likewise, does not violate the Fifth Amendment.

566. Verizon specifically contends that without either a finding of monopoly power or a restriction on government entry, "compelled common carriage would constitute a government taking."[1739] They cite approvingly Judge Wilkey's observation in *NARUC I* that "early common carriage regulations were 'challenged as deprivations of property without due process.'"[1740] However, Judge Wilkey continues in the next sentence to explain that Congress has regularly imposed common carrier obligations without a showing of monopoly power or entry restrictions.[1741] Verizon's suggestion, when extended to its logical conclusion, would necessitate rendering unconstitutional any common carriage obligations outside of true government-sponsored monopolies. The courts have taken a much narrower view of both the characteristics necessary for common carrier status[1742] and the effect of that status on takings claims when present in a non-monopoly context.[1743] Correspondingly, we conclude that today's classifications, without a showing of monopoly power do not constitute takings under the Fifth Amendment.

1. *Per Se* Takings

567. Some commenters argue that our rules would effect a *per se* taking by granting third

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[1736] *See, e.g.*, Verizon Title II White Paper at 1-5.

[1737] *See generally supra* Section IV.

[1738] *Southwestern Bell Telephone Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994) (citing *NARUC I*, 525 F.2d at 644 ("Further, we reject those parts of the Orders which imply an unfettered discretion in the Commission to confer or not confer common carrier status on a given entity, depending on the regulatory goals it seeks to achieve.").

[1739] Verizon Comments at 66; Verizon White Paper at 4 n.3.

[1740] Verizon Comments at 66 n.183 (citing *NARUC v. FCC*, 525 F.2d 630, 640 (1976) (*NARUC I*)).

[1741] *NARUC I*, 525 F.2d at 641 ("Subsequently, legislation has been upheld imposing stringent regulations of various types on entities found to be affected with a public character, even where nothing approaching monopoly power exists. In such cases as the Motor Carrier Act of 1935, relatively competitive carrying industries have been subjected to entry, rate and equipment regulations on the basis of the quasi-public character of the activities involved.").

[1742] *See Verizon*, 740 F.3d at 651 ("'[T]he primary *sine qua non* of common carrier status is a quasi-public character, which arises out of the undertaking to carry for all people indifferently.'" (internal quotation marks omitted) (citing *Nat'l Assoc. of Reg. Utility Commissioners v. FCC*, 533 F.2d 601, 608 (1976) (*NARUC II*)).

[1743] *See NARUC I*, 525 F.2d at 641 (citing *American Trucking Ass'ns, Inc. v. United States*, 101 F.Supp. 710 (N.D. Ala. 1951) (upholding Motor Carrier Act of 1935 applying common carriage status to trucking industry against constitutional challenge under the Fifth Amendment, though significant competition existed)); *see also Sam L. Majors Jewelers v. ABX, Inc.*, 117 F.3d 922, 928-29 (5th Cir. 1997) (preserving federal cause of action against air carriers as common carriers after deregulation of airline industry).

parties a perpetual easement onto broadband providers' facilities, a form of physical occupation.[1744] These arguments mischaracterize the nature of the rules we adopt today and misapply Fifth Amendment jurisprudence. To qualify as a *per se* taking, the challenged government action must authorize a permanent physical occupation of private property.[1745] This rule, however, is "very narrow" and it does not "question the equally substantial authority upholding a State's broad power to impose appropriate restrictions upon an owner's use of his property."[1746] The Supreme Court has advised that a *per se* taking is "relatively rare and easily identified"[1747] and "presents relatively few problems of proof."[1748]

568. Under this formulation, today's Order does not impose a *per se* taking on broadband providers. Regulation of the transmissions travelling over a broadband providers' property differs substantially from physical occupations which are the hallmark of *per se* takings, such as the installation of cable equipment at issue in *Loretto v. Teleprompter CATV Corp*.[1749] We do not require the permanent installation of any third-party equipment at broadband providers' network facilities,[1750] or deprive broadband providers of existing property interests in their networks—a broadband provider retains complete control over its property.[1751] Our rules merely regulate the *use* of a broadband Internet access provider's network—they are neither physical nor permanent occupations of private property. Courts have repeatedly declined to extend *per se* takings analysis to rules regulating the transmission of communications traffic over a provider's facilities,[1752] and we believe that these decisions comport with

(Continued from previous page)

[1744] CenturyLink Comments at 64–70; TechFreedom Comments at 93–94; Verizon Comments at 66–67; Verizon Reply at 48.

[1745] *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 441 (1982) (holding that a New York law requiring landlords to permit a cable company to install cables on their leased buildings required just compensation because it effected a "permanent physical occupation" of their private property). The government may also commit a *per se* taking by completely depriving an owner of *all* economically beneficial use of her property. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1019 (1992). However, the record does not reflect a concern among commenters that our actions today deprive broadband providers of all economically beneficial use of their property—nor do we find one merited—so we limit our discussion to the permanent physical occupation variety of *per se* takings.

[1746] *Loretto*, 458 U.S. at 441.

[1747] *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 324 (2002).

[1748] *Loretto*, 458 U.S. at 437.

[1749] *See generally id*.

[1750] *Cablevision Systems Corp. v. FCC*, 570 F.3d 83, 98 (2d Cir. 2009) (quoting *FCC v. Fla. Power Corp.*, 480 U.S. 245, 252-53 (1987) ("[The] touchstone [of *per se* takings] is 'required acquiescence' to the occupation of the property by an uninvited stranger or an 'interloper with a government license.'")).

[1751] The Supreme Court has further cabined this *per se* takings rule by noting that some permanent incursions onto private property could be acceptable if the property owner owned the installation and retained discretion in how to deploy it. *Loretto*, 458, U.S. at 441, n.19 (hypothesizing that the New York statute in question could have required landlords "to provide cable installation if a tenant so desires" if the landlord owned the installation). Were our rules found to impose a permanent physical occupation on broadband providers' networks, broadband services seem to fall squarely within this exception. Broadband Internet access services are characterized as distinctly user-directed. Further, providers retain discretion in the deployment of their facilities and are free to manage traffic through reasonable network management. *See supra* Section III.D.4.

[1752] *See Cablevision Sys. Corp. v. FCC*, 570 F.3d 83, 98 (2d Cir. 2009) (upholding Commission's finding that a must-carry obligation did not constitute a physical occupation because "the transmission of WRNN's signal does not involve a physical occupation of Cablevision's equipment or property"); *Qwest v. United States*, 48 Fed. Cl. 672, 693-94 (Fed. Cl. 2001); *see also Loretto*, 458 U.S. at 435, n.12 ("The permanence and absolute exclusivity of a

(continued….)

the Supreme Court's perspective that permanent physical occupation of property is a narrow category of takings jurisprudence and is "easily identifiable" when it does occur.[1753]

569. Moreover, to the extent that broadband providers voluntarily open their networks to end users and edge providers, reasonable regulation of the use of their property poses no takings issue. When owners voluntarily invite others onto their property—through contract or otherwise—the courts will not find that a permanent physical occupation has occurred.[1754] So long as property owners remain free to avoid physical incursions on their property by discontinuing the services to which it has been dedicated, reasonable conduct regulations can be imposed on the use of such properties without raising *per se* takings concerns.[1755] In point of fact, broadband providers regularly invite third parties to transmit signals through their physical facilities by contracting with end users to provide broadband Internet access service and promising access to all or substantially all Internet endpoints.[1756] Our rules do not compel broadband providers to offer this service—instead our rules simply regulate broadband providers' conduct with respect to traffic which currently freely flows over their facilities. Thus, to the extent that broadband providers allow any customer to transmit or receive information over its network, the imposition of reasonable conduct rules on the provision of broadband Internet access services does not constitute a *per se* taking. Furthermore, even if the rules did impose a type of physical occupation on the facilities of broadband providers, such an imposition is not an unconstitutional taking because broadband providers are compensated for the traffic passing over their networks.[1757]

2. Regulatory Takings

570. Nor do the rules we adopt today constitute a regulatory taking.[1758] Outside of *per se* takings cases, courts analyze putative government takings through "essentially ad hoc, factual inquiries" into a variety of unweighted factors such as the "economic impact of the regulation," the degree of interference with "investment-backed expectations," and "the character of the government action."[1759] Directing analysis of these factors is a common touchstone—whether the regulatory actions taken are "functionally equivalent to the classic taking in which government directly appropriates private property or ousts the owner from his domain."[1760] Open Internet rules do not implicate such a deprivation of value or control over the networks of broadband providers, and so pose no regulatory takings issues.

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physical occupation distinguish it from temporary limitations on the right to exclude . . , [which] are subject to a more complex balancing process to determine whether they are a taking.").

[1753] *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 324 (2002).

[1754] *See Loretto*, 458 U.S. at 440 ("So long as these regulations do not *require* the landlord to suffer the physical occupation of a portion of his building by a third party, they will be analyzed under the multifactor inquiry generally applicable to nonpossessory governmental activity.").

[1755] *See Hilton Washington Corp. v. District of Columbia*, 777 F.2d 47 (D.C. Cir. 1985) (non-discrimination requirement with respect to hotel taxi stands held not a taking under *Loretto*); *Yee v. City of Escondido*, 503 U.S. 519, 531 (1992) (noting that because mobile home park petitioners "voluntarily open their property to occupation by others, petitions cannot assert a *per se* right to . . . exclude particular individuals"); *PruneYard Shopping Center v. Robbins*, 447 U.S. 74, 83-84 (1980); *FCC v. Florida Power Corp.*, 480 U.S. 245, 251–253 (1987).

[1756] *See, e.g.*, Verizon Comments at 2.

[1757] With respect to the rules governing the broadband Internet access service, broadband providers are compensated through the imposition of subscription fees on their end users.

[1758] *See* Verizon Comments at 67; CenturyLink Comments at 70–71.

[1759] *Penn Cent. Transp. Co. v. City of N.Y.*, 438 U.S. 104, 124 (1978).

[1760] *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528, 539 (2005) (discussing application of the *Penn Central* factors).

571. The economic impact of the rules we adopt today is limited because, in most circumstances, the Internet operates in an open manner today.[1761] Indeed, rather than reducing the value of broadband provider property, today's rules likely serve to enhance the value of broadband networks by promoting innovation on the edge of the network, thereby driving consumer demand for broadband Internet access and increasing the networks' value.[1762] Further, today's Order does not so burden broadband providers' discretion in managing and deploying their networks to effectively "oust" them from ownership and control of their networks. While we have adopted a set of bright-line rules today for some practices, broadband providers are still afforded a great deal of discretion to enter into individualized arrangements with respect to the provision of broadband Internet access services under the no-unreasonable interference/disadvantage standard. The limited scope of the open Internet rules also injects flexibility into our regulatory framework and provides sufficient property protections to take our rules outside the ambit of the Fifth Amendment.[1763]

572. Likewise, any investment backed expectations of broadband providers in prior regulatory regimes are minimal. As a general matter, property owners cannot expect that existing legal requirements regarding their property will remain entirely unchanged.[1764] The Commission has long regulated Internet access services,[1765] and there is no doubt that broadband Internet "falls comfortably within the Commission's jurisdiction."[1766] Indeed, with respect to broadband Internet access service, claims by broadband providers that our previous regulatory treatment of broadband engendered reliance interests[1767] runs counter to the plain language of the 2002 *Cable Modem Declaratory Ruling* and the 2005 *Wireline Broadband Classification Order*, both of which contained notices of proposed rulemaking seeking

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[1761] Charter Comments at 3; BrightHouse Comments at 25-26; Verizon Comments at 3.

[1762] *See Verizon*, 740 F.3d at 649 (affirming the Commission's finding that "the strength of the effect on broadband investment that it anticipated from edge-provider innovation, which would benefit both from the preservation of the 'virtuous circle of innovation' created by the Internet's openness and the increased certainty in that openness engendered by the Commission's rules").

[1763] *See supra* Section III.D (excluding from the scope of the open Internet rules reasonable network management, Internet traffic exchange, and other data services outside the definitions of broadband Internet access services).

[1764] *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027 (1992); *Gen. Tel. Co. of the Sw. v. United States*, 449 F.2d 846, 864 (5th Cir. 1971). Additionally, persons operating in a regulated environment develop fewer reliance interests in industries subject to comprehensive regulation. *See Concrete Pipe & Prods. of S. Cal., Inc. v. Constr. Laborers Pension Trust for S. Cal.*, 508 U.S. 602, 645 (1993) (quoting *FHA v. The Darlington, Inc.*, 358 U.S. 84, 91 (1958)).

[1765] *See Regulatory & Policy Problems Presented by the Interdependence of Computer & Comm. Servs.*, Docket No. 16979, Final Decision and Order, 28 F.C.C. 2d 267, 270, para. 12, 275, para. 24 (1971) (*Computer I Final Decision*), *aff'd sub nom. GTE Servs. Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973), *decision on remand*, 40 F.C.C. 2d 293 (1972); *Amendment of Section 64.702 of the Comm'n's Rules & Regs, Second Computer Inquiry*, Final Decision, 77 F.C.C. 2d 384, 417-35, 461-75, paras. 86-132, 201-31 (1980) (*Computer II Final Decision*), *aff'd sub nom. Computer & Commc'ns Indus. Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982); *Amendment of Section 64.702 of the Comm'n's Rules & Regs.* (*Third Computer Inquiry*), CC Docket No. 85-229, Phase I, Report and Order, 104 F.C.C. 2d 958, para. 4 (1986) (*Computer III Phase I Order*) (subsequent history omitted).

[1766] *Verizon*, 740 F.3d at 629-630 (discussing the historical progression of our regulation of Internet access) (citing *Computer II*, 77 F.C.C.2d 384, 387, paras. 5-7). *See also Comcast*, 600 F.3d at 646-47.

[1767] *See, e.g.*, Letter from Kathryn Zachem, Senior Vice President, Comcast, to Marlene H. Dortch, Federal Communications Commission, WC Docket No. 14-28, 10-127, at 7 (filed Nov. 4, 2014); Verizon Title II White Paper at 12.

comment on the retention of Title II-like regulation of those services.[1768] Also, because we do not propose to regulate *ex ante* broadband providers' ability to set market rates for the broadband Internet access services they offer, there is no reason to believe that our ruling will deprive broadband providers of the just compensation that is a full answer to any takings claim.

573. In characterizing our proposed rules as a regulatory taking, CenturyLink looks to *Kaiser Aetna*, a case in which the government sought to establish public access rights to a private marina by classifying it as "navigable waters of the United States.[1769] As described above, we think that analogies to real property incursions are inapplicable to the provision of broadband Internet access services. In any event, the facts of *Kaiser* bear little resemblance to the rights and interests implicated by broadband networks. Unlike the small, privately held marina which was not open to the public in *Kaiser Aetna*, broadband Internet access service involves access to substantially all Internet endpoints.[1770] While the marina in *Kaiser Aetna* maintained a small fee-paying membership, broadband Internet access services are offered directly to the public at large, as we recognize in their classification as telecommunications services. In sum, open Internet rules do not so burden broadband provider's control and ownership of their networks as to rise to the level of a regulatory taking in violation of the Fifth Amendment. The economic impact of our rules is minimal and our classifications do not frustrate any significant reliance interests.

VII. SEVERABILITY

574. We consider the actions we take today to be separate and severable such that in the event any particular action or decision is stayed or determined to be invalid, we would find that the resulting regulatory framework continues to fulfill our goal of preserving and protecting the open Internet and that it shall remain in effect to the fullest extent permitted by law. Though complementary, each of the rules, requirements, classifications, definitions, and other provisions that we establish in this Report and Order on Remand, Declaratory Ruling, and Order operate independently to promote the virtuous cycle, encourage the deployment of broadband on a timely basis, and protect the open Internet.

575. *Severability of Open Internet Rules from One Another.* The open Internet rules we adopt today each operate independently to protect the open Internet, promote the virtuous cycle, and encourage the deployment of broadband on a timely basis. The *Verizon* court recognized as much by holding our initial transparency rule severable from the non-discrimination and no blocking rules from the *2010 Open Internet Order*.[1771] We apply that view to today's transparency rule, as well as to the no blocking, no throttling, and no paid prioritization rules and the no-unreasonable interference/disadvantage adopted today. While today's rules put in place a suite of open Internet protections, we find that each of these rules, on its own, serves to protect the open Internet. Each rule protects against different potential harms and thus operates semi-independently from one another. For example, the no-blocking rule protects consumers' right to access lawful content, applications, and services by constraining broadband

[1768] *See Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4841-45 (seeking comment on the extent to which the Commission should regulate cable modem service, including whether the Commission should require cable operators to offer "open access'); *Wireline Broadband Classification Order*, 20 FCC Rcd at 14929-14935, paras. 145-159 (seeking comment on, among other things, the need for geographic rate averaging, and consumer protections regarding CPNI, against slamming, against sudden discontinuance of service). *See supra* para. 360 (discussing reliance interests in classification of BIAS).

[1769] *Kaiser Aetna v. United States*, 444 U.S. 164 (1979).

[1770] *See supra* Section III.D.1.

[1771] *Verizon*, 740 F.3d at 659.

providers' incentive to block competitors' content.[1772] The no throttling rule serves as an independent supplement to this prohibition on blocking by banning the impairment or degradation of lawful content that does not reach the level of blocking.[1773] Should the no blocking rule be declared invalid, the no throttling rule would still afford consumers and edge providers significant protection, and thus could independently advance the goals of the open Internet, if not as comprehensively were the no blocking rule still in effect. The same reasoning holds true for the ban on paid prioritization, which protects against particular harms independent of the other bright-line rules. Finally, the no-unreasonable interference/disadvantage standard governs broadband provider conduct generally, providing independent protections against those three harmful practices along with other and new practices that could threaten to harm Internet openness. Were any of these individual rules held invalid, the resulting regulations would remain valuable tools for protecting the open Internet.

576. *Severability of Rules Governing Mobile/Fixed Providers.* We have also made clear today our rules apply to both fixed and mobile broadband service.[1774] These are two different services, and thus the application of our rules to either service functions independently. Accordingly, we find that should application of our open Internet rules to either fixed or mobile broadband Internet access services be held invalid, the application of those rules to the remaining mobile or fixed services would still fulfill our regulatory purposes and remain intact.

[1772] *See supra* Section III.C.1.a.

[1773] *See supra* Section III.C.1.b.

[1774] *See supra* Section III.D.

STATEMENT OF
COMMISSIONER MICHAEL O'RIELLY

Re: *Restoring Internet Freedom*, WC Docket No. 17-108.

The order before us represents the culmination of extensive work by agency staff to carefully consider whether net neutrality rules are truly warranted, thoroughly reviewing the legal underpinnings, economic analyses, and practical effects, as debated exhaustively in the record of this proceeding. I agree with the decision, and I support such a well-reasoned and soundly justified order.

While I have long-standing views on this topic, I approached this proceeding with an open mind. I read the substantive comments with interest, and I met with everyone I could, no matter the particular viewpoint. In the end, I am simply not persuaded that heavy-handed rules are needed to protect against hypothetical harms. In all this time, I have yet to hear recent, unquestionable evidence of demonstrable harms to consumers that demands providers be constrained by this completely flawed regulatory intervention. I still cannot endorse guilt by imagination.

It is a shame that this topic has been plagued by baseless fearmongering. Many small businesses have been blatantly misled into thinking that they are going to be forced to pay more to continue to do business online. Others have been told that free speech and civil rights are on the line. It simply isn't true – and we know that from experience.

The Internet has functioned without net neutrality rules far longer than with them. Having rules has been the exception, not the norm. So, what happened during that time? Did ISPs start scouring the web in the hopes of charging a small business more to run an online shop? Did they block advocacy groups from expressing their views? Of course not. In fact, nobody can name more than a handful of examples that occurred over the course of an entire decade prior and that were readily dealt with, whether actual violations or not. The legend of a cable company trying to break the Internet may make a scary bedtime story for the children of telecom geeks, but it isn't reality.

Far from being an Internet dark age, those periods without net neutrality rules were times of innovation and investment. The most well-known edge providers came into being and flourished, including Google in 1998, Facebook in 2004, YouTube in 2005, and Twitter in 2006. Broadband deployment boomed. And, consumers and small businesses were freely able to access all lawful content.

Now, companies have made enforceable commitments to uphold net neutrality, and consumer advocates are actively watching for violations to trumpet. Therefore, it is even less likely that we will see bad conduct in the future. Indeed, the fact that some have felt compelled to resort to shameful scare tactics only serves to highlight that there are no real problems for the FCC to solve.

So, for those of you out there who are fearful of what tomorrow may bring, please take a deep breath. This decision will not break the Internet. What we are doing is reverting back to the highly-successful, bipartisan, governmental approach that existed before.

As the order makes clear, we depart from the prior Commission approach because we determine that the decision was flawed, we believe that our statutory interpretation and course of action is the better one, and our decision is grounded in and supported by the record. The text has been publicly available for over three weeks, and our good staff has summarized it for us today, so there is no need for me to step through the policies and reasoning again in detail. Instead, I will highlight a few key parts and address some of the false arguments and misconceptions regarding the substance and process.

Replacing the Damaging Title II Framework with a Proven Light-Touch Approach

While repealing net neutrality rules grabs headlines, reversing the classification of broadband Internet access service as a Title II telecommunications service is far more consequential. Net neutrality started as a consumer issue, but it soon became a stepping stone to impose vastly more onerous common

carrier regulations on broadband companies. Even the previous Chairman initially attempted to reinstate net neutrality rules under more limited legal authority. And many companies would have accepted the compromise and lived with net neutrality rules as long as the Commission didn't impose Title II. But thanks to one infamous YouTube video posted by the prior Administration, this so-called independent agency was quickly railroaded into treating ISPs like public utilities instead.[1]

As discussed at length in the order, the record, and the dissents that Chairman Pai and I wrote in response to the 2015 order, there were fundamental legal problems and factual errors underlying the decision to treat fixed and mobile broadband services as "telecommunications services." Therefore, I will focus on a few aspects that warrant particular attention.

As an initial matter, some have argued that the issue of FCC authority over the Internet is a "major question."[2] Specifically, it is a matter of such "economic and political significance," that if Congress intended the FCC to wield the power to regulate it, then Congress would have clearly stated its intent.[3] Our current statute is devoid of any such statement.[4] On the contrary, what little is said in the law is aimed at keeping the Internet free from state and federal regulation.[5] And prior to the 2015 order, the FCC "effectuated that legislative judgment" by treating Internet access "only as an information service subject to light-touch regulation."[6] That is the only reading that comports with the design and structure of the statute as a whole.[7] In short, because "Congress has not clearly authorized the FCC to classify Internet service as a telecommunications service and impose common-carrier obligations on Internet service providers,"[8] the prior Commission never should have been permitted to embark on its "voyage of discovery" to regulate the Internet.[9]

Additionally, I take issue with the notion that the Communications Act is ambiguous with respect to the proper classification of broadband Internet access. That view, advanced in the 2015 order and mistakenly endorsed by the *USTelecom* panel majority, rests on a misreading of the *Brand X* decision. As one commenter put it: "[N]o Justice in *Brand X* doubted—and no party disputed—that cable broadband providers . . . offered an 'information service' when they provided consumers with . . . Internet access

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[1] *See* A Majority Staff Report of the Committee on Homeland Security and Governmental Affairs, United States Senate, Senator Ron Johnson, Chairman, *Regulating the Internet: How the White House Bowled Over FCC Independence* (Feb. 27, 2016), https://www.hsgac.senate.gov/download/regulating-the-internet-how-the-white-house-bowled-over-fcc-independence.

[2] *See* TechFreedom Reply at 2-6 (discussing application of the "major question" or "major rule" doctrine to the regulation of broadband Internet access service); *see generally* Petition for Writ of Certiorari, *United States Telecom Ass'n v. FCC*, 825 F.3d 674 (No. 17-504) (*USTelecom Cert Petition*); *USTelecom v. FCC*, 855 F.3d 381, 418-426 (D.C. Cir. 2017) (Kavanaugh, J., dissenting) (explaining that "under any conceivable test for what makes a rule major, the net neutrality rule qualifies as a major rule."); *see USTelecom*, 855 F.3d at 400-408 (Brown, J., dissenting).

[3] *See* TechFreedom Reply at 2-6 (quoting *Util. Air Regulatory Grp. v. E.P.A.*, 134 S. Ct. 2427, 2444 (2014)).

[4] *See* Free State Foundation Comments at 20-21.

[5] *Id.*

[6] *USTelecom Cert Petition* at 18.

[7] *Id*. at 28-31. Additionally, Judge Kavanaugh notes that "[t]he FCC's light-touch regulation did not entail common-carrier regulation and was not some major new regulatory step of vast economic and political significance." *USTelecom*, 855 F.3d at 425 & n. 5 (Kavanaugh, J., dissenting).

[8] *USTelecom*, 855 F.3d at 425 (Kavanaugh, J., dissenting).

[9] TechFreedom Reply at 2-6 (quoting *UARG*, 134 S. Ct. at 2446).

functionality."[10] The only question "was whether the ISPs could be said to 'offer' . . . a separate telecommunications service in the form of last-mile transmission between the broadband cable provider and customers' homes."[11] Therefore, "[n]othing in the opinion even suggests, much less holds, that the statute authorizes the Commission to classify Internet access itself as a telecommunications service."[12]

Yet that is exactly what the 2015 order claimed. The prior Commission determined that, "because the 'information service' of retrieving information from Internet websites includes 'telecommunications service,' every aspect of that 'information service' is now just a "telecommunications service."[13] In other words, "the pizzeria no longer offers 'pizza' or 'pizza delivery,' it just offers 'delivery.'"[14] That's an untenable reading of *Brand X* that should be rejected outright.

Instead, the plain language of the statute itself makes clear that broadband Internet access service is an information service. Indeed, several commenters argued that the text, structure, and history of the Act do not merely *permit* but rather *compel* an information service classification.[15] As one commenter explained, broadband Internet access service "by definition . . . necessarily offers the 'capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available, information via telecommunications.'"[16] Indeed, "interacting with third-party data is the defining characteristic of Internet access."[17] Moreover, even if one were to read the statute to require ISPs to provide data processing or data storage functionalities of their own before Internet access could meet the definition of "information service," they would still qualify because all ISPs provide core data-processing functionalities, including DNS and caching.[18] What is more, virtually all ISPs also "offer" additional data-processing features like "email, data storage, parental controls, unique programming content, spam

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[10] AT&T Comments at 83. *See also* AT&T Reply at 57 ("In *Brand X*, the Supreme Court and all litigants assumed that the Internet access functionality offered by broadband ISPs was an "information service"); Verizon Comments at 36 ("No party or Justice took the Title II Order's extreme position that the entire service is a telecommunications service subject to common-carrier regulation.").

[11] AT&T Reply at 57. *See also* Verizon Comments at 35-36 ("[W]hen the Supreme Court considered the Commission's classification of cable broadband in *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, it was 'unchallenged' that 'cable modem service' – i.e., the Internet access service that 'enables users, for example, to browse the World Wide Web, to transfer files from file archives available on the Internet via the 'File Transfer Protocol,' and to access e-mail and Usenet newsgroups' – was 'an 'information service." The technological question that divided the Court was whether cable providers also offered a separable telecommunications service in providing this information service, or whether instead the Commission had reasonably concluded that the transmission of information was an integrated aspect of the information-service offering, as the Court held.") (internal citations omitted).

[12] AT&T Reply at 58.

[13] *USTelecom*, 855 F.3d at 404 (Brown, J., dissenting).

[14] *Id.*

[15] AT&T Comments at 60-90. *See also* CenturyLink Comments at 15 ("An objective examination of the technical details of how BIA service works demonstrates that it falls, unambiguously, within the Act's definition of an information service classification."); Verizon Comments at 35-36 ("Broadband Internet access service is therefore an information service within the plain terms of the Act – just as Congress unambiguously stated in Sections 230 and 231."); CTIA Comments at 28-42.

[16] AT&T Reply at 60 (citing 47 U.S.C. § 153(24)); AT&T Comments at 68-69.

[17] AT&T Reply at 60.

[18] *See* AT&T Comments at 73-82.

protection, pop-up blockers, instant messaging services, on-the-go access to Wi-Fi hotspots, and various widgets, toolbars, and applications."[19]

While there is no ambiguity in the law or *Brand X* about whether Internet access itself is an information service, even if a future court were to disagree, the present order would still rest on firm legal footing. For one, if the statute is unclear, the "major questions" doctrine prevents an agency from relying on statutory ambiguity to issue major rules, thereby precluding the FCC from regulating broadband Internet access service under Title II.[20]

For another, even if the "major question" doctrine did not apply, and if some ambiguity were to be found, our decision to reclassify the service is certainly a reasonable and permissible one, as the order lays out in detail. Likewise, one commenter noted: "No one seriously disputes that the Commission retains that authority under any plausible reading of this statutory scheme. *Brand X* itself upheld an information service classification. And even the judges who formed the panel majority in *USTelecom* upheld the [2015 order] on the basis that 'the Act left the matter to the agency's discretion.'"[21]

Far from blessing the 2015 order as some have suggested, the *USTelecom* panel majority offered, at best, a tepid and carefully qualified approval. Notably, before addressing the substantive arguments, the *USTelecom* panel majority found it "important to emphasize" its "limited" role in reviewing agency regulations. "Critically," the court does not "inquire as to whether the agency's decision is wise as a policy matter; indeed, [it is] forbidden from substituting [its] judgment for that of the agency."[22]

Consequently, should this order be challenged, it would be entitled to the same, "highly deferential" review.[23] As another commenter pointed out, the Commission has discretion "to classify BIAS 'over and over' again" and that "[a]s between the two possible classifications, 'the Commission's choice of one of them is entitled to deference.'"[24] While I disagree with the level of deference that courts currently afford agency decisions, including the 2015 order, the current decision, if challenged, must be provided the same treatment.[25]

In addition to the legal, analytical, and policy infirmities of the 2015 order, that decision opened the door to much broader regulation of broadband providers.[26] And, as we saw, the Commission quickly

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[19] *Id*. Whether consumers use these features or those offered by third parties is irrelevant. *See id* at 81.

[20] *See* Free State Foundation Comments at 20-21; *USTelecom*, 855 F.3d at 425 (Kavanaugh, J., dissenting) ("*Brand X's* finding of statutory ambiguity cannot be the *source* of the FCC's authority to classify Internet service as a telecommunications service. Rather, under the major rules doctrine, *Brand X's* finding of statutory ambiguity is a *bar* to the FCC's authority to classify Internet service as a telecommunications service.").

[21] AT&T Comments at 59. *See also* NCTA Comments at 10-11.

[22] *Id*.

[23] USTelecom Comments at 15-16.

[24] NCTA Comments at 10-11 (citing *USTelecom*, 855 F.3d at 384 (Srinivasan, J., joined by Tatel, J., concurring in the denial of rehearing en banc)).

[25] *See* Free State Foundation Comments at 33-34 ("As the D.C. Circuit recognized in *US Telecom v FCC*, the Commission's predictive judgments are reviewed according to a "highly deferential standard" – and that standard is surely satisfied here.") (quoting *United States Telecom Association*, 825 F.3d at 707).

[26] *See, e.g.,* CTIA Comments at 7-9 ("Title II provides the Commission with a vehicle to expand its regulatory oversight of broadband providers at any time. . . . Such a regulatory environment, where today's hedging language portends tomorrow's intervention, creates intensive uncertainty that undercuts innovation and harms consumers. Mobile broadband providers need to know that they can innovate, invest, and operate their networks in a manner that will help them attract and retain customers, without the constant regulatory overhang that invites others to second-guess their decisions or micromanage their businesses, even when those others promise not to do so 'at this

(continued….)

walked through that door.[27] The agency next adopted privacy regulations that would have disrupted the interworking of the Internet, upended consumer expectations and preferences, and created asymmetrical obligations on the companies that have the least amount of access to consumers' online data. Fortunately, Congress rescinded those rules. However, companies continued to face uncertainty that other business decisions, commercial negotiations, service offerings, and pricing decisions would be scrutinized by the Commission.[28] I believe that these legitimate concerns were well founded and, if there had not been a change in Administration, the agency would have proceeded further down that path, as demonstrated by its zero-rating witch hunt.

The decision to reinstate the classification of both fixed and mobile broadband Internet access service as an "information service" under section 3, and to reinstate the classification of mobile broadband as a "private mobile service" under section 332, eliminates these concerns and restores a sensible bipartisan approach to broadband services.[29] Under this proven framework, the FCC asserts jurisdiction over broadband Internet access service as an interstate information service, but applies regulation only to the extent warranted to address specific, concrete concerns.[30]

Eliminating the Bright Line Rules and General Conduct Standard

With the elimination of Title II, there is no remaining legal basis for the net neutrality bright line rules and general conduct standard, so we must repeal them. In many proceedings before this agency, I have questioned the need for rules that impose costs but do not solve real problems, so their removal is completely appropriate and necessary. That isn't necessarily the end of the story, however.

Congress may enact legislation providing new rules and the legal authority to support them. I firmly believe that would be the better course and the only way to bring finality to this issue. As noted above, regulating broadband Internet access service beyond the light-touch framework adopted in this order would involve a "major question" that requires a clear statement of authority by Congress. New legislation, should Congress deem it appropriate, would provide that clarity and end the game of regulatory ping pong.

I would humbly suggest, however, that the general conduct standard remain forever in the ash heap. This policy gave the Commission's Enforcement Bureau unbounded power to make the rules up as it went along – a frightening prospect.[31] Businesses could find themselves subject to investigation without any prior notice that conduct could be considered a violation.[32] One public interest group even

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time' or 'for now.'"); AT&T Comments at 49-59 (describing the potential and actual problems resulting from the "vague and unworkable" rules, including the "profoundly disruptive" zero-rating investigation); Verizon Comments at 10-13.

[27] *See, e.g,* CTIA Comments at 8, 9-14 (discussing the FCC's privacy and zero-rating initiatives).

[28] *See id.*

[29] *See* Verizon Comments at 27-60.

[30] I also want to rebut the persistent but unfounded argument that reclassification undermines our federal universal service programs. As I've remarked before, and as the order makes clear, section 254 already provides sufficient authority to fund broadband-capable networks. *See also* Verizon Comments at 25-27 (noting that "the Commission had already supported broadband services under all four universal service programs before it classified broadband as a telecommunications service in the Title II Order" and explaining the specific, existing authority within each of the four USF programs).

[31] *See* AT&T Comments at 51-52.

[32] *See* Testimony of Robert M. McDowell, Chief Public Policy Advisor of Mobile Future, before the U.S. House Committee on the Judiciary, Subcommittee on Regulatory Reform, Commercial and Antitrust Law, "Net Neutrality
(continued….)

called the catch-all a "recipe for overreach and confusion."[33] It was the height of regulatory capriciousness and should never be resurrected.[34]

Similarly, I am hopeful that if Congress goes down this path, it will see merit in rejecting a ban on paid prioritization. The sadly simplistic rhetoric around "fast lanes" and "slow lanes" has created unfortunate misconceptions about paid prioritization. In reality, it could optimize the use of networks and traffic delivery for all involved.[35] Clearly, there are cases today and many more that will develop in time in which the option of a paid prioritization offering would be a necessity based on either technology needs or consumer welfare. I, for one, see great value in the prioritization of telemedicine and autonomous car technology over cat videos.

And speaking of autonomous cars, we must ensure that wireless providers can manage their systems. Wireless networks have capacity constraints based on the physics of the spectrum they use. Generally, wireless use is booming, and more and more Americans are using wireless networks to access the Internet, but this is just the beginning. In 2016, the average person generated 250 MB of data per day and, in 2020, it is predicted that number will increase to 1.5GB per day – a 200 percent increase in data traffic. Now, consider that each autonomous vehicle is predicted to generate an additional four terabytes of data a day, much of which will be carried by wireless networks.[36] It is hard to imagine that some prioritization of traffic will not be necessary, further undermining attempts to ban such practices.

Retaining Transparency Rules and Partnering with the FTC to Enforce Them

Although the order eliminates the bright line rules and general conduct standard, it does leave a version of the transparency requirements in place. In fact, the requirements are more extensive than those

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and the Role of Antitrust" at 10 (November 1, 2017) (McDowell Testimony); Free State Foundation Comments at 55-56; CTIA Comments at 9-14.

[33] Corynne McSherry, Electronic Frontier Foundation, *Dear FCC: Rethink The Vague "General Conduct" Rule* (Feb. 24, 2015), https://www.eff.org/deeplinks/2015/02/dear-fcc-rethink-those-vague-general-conduct-rules.

[34] *See, e.g.,* NCTA Comments at 43-48; Comments of Americans for Tax Reform et. al.

[35] *See, e.g., United States Telecom Association*, 825 F.3d at 763 (Williams, J., concurring in part and dissenting in part) ("[P]aid prioritization would encourage ISP innovations such as providing special speed for voice transmission (for which timeliness and freedom from latency and jitter—delays or variations in delay in delivery of packets—are very important), at little or no cost to services where timeliness (especially timeliness measured in milliseconds) is relatively unimportant. Similarly, pricing for extra speed would incentivize edge providers to innovate in technologies that enable their material to travel faster (or reduce latency or jitter) even in the absence of improved ISP technology. . . . Thus paid prioritization would yield finely tuned incentives for innovation exactly where it is needed to relieve network congestion. These innovations could improve the experience for users, driving demand and therefore investment.") (citing and summarizing Comments of International Center for Law & Economics and TechFreedom, WC Docket No. 14-28, at 17 (filed July 17, 2014)); *see also id*. at 764 ("Unless there is capacity for all packets to go at the same speed and for that speed to be optimal for the packets for which speed is most important, there must be either (1) prioritization or (2) identical speed for all traffic. If all go at the same speed, then service is below optimal for the packets for which speed is important. If there is unpaid prioritization, and it is made available to the senders of packets for which prioritization is important, then (1) those senders get a free ride on costs charged in part to other packet senders and (2) those senders have less incentive to improve their packets' technological capacity to use less transmission capacity. Allowance of paid prioritization eliminates those two defects of unpaid prioritization.") (citing and summarizing Comments of Professor Justin (Gus) Hurwitz, WC Docket No. 14-28 at 17 (filed July 18, 2014)).

[36] *See* Brian Krzanich, Intel Newsroom, *Data is the New Oil in the Future of Automated Driving* (Nov. 15, 2016), https://newsroom.intel.com/editorials/krzanich-the-future-of-automated-driving/.

first adopted back in 2010. While I remain skeptical of the legal authority for them, or their value given the FTC's existing authority, I am without a mechanism to get them removed.

The transparency rules mean that anyone who is interested in monitoring the impact of this order will be able to stay informed about how providers are implementing it. Should companies choose to discriminate against certain types of traffic, for example, they are required to say so. Given that companies have already promised not to engage in such behavior, however, I do not expect the disclosures themselves to be that shocking.

Of course, if a business fails to disclose relevant information or its practices differ from what is described, it will be subject to an investigation and enforcement, as outlined in the recent FCC-FTC Memorandum of Understanding. But, I sincerely doubt that legitimate businesses are willing to subject themselves to a PR nightmare for attempting to engage in blocking, throttling, or improper discrimination. It is simply not worth the reputational cost and potential loss of business. More likely, and unfortunately, the transparency requirements will keep companies from offering services or features that could actually benefit consumers.

While I understand the decision to rely on section 257 as authority for the transparency requirements, I do not believe that section 218 or the provisions of Title III cited in the circulated version of the order should be invoked here. I am relieved that they have been removed from the item at my request. Based on the conversations that my staff and I have had over the last few weeks, I am confident that they would not be necessary to uphold the transparency rules, should those be challenged.

Moreover, opening the door to their use could prove costly and damaging in the long run. Those provisions contain very broad language and I could envision a more regulatory Commission in the future attempting to extend their use to require burdensome disclosures delving into the minutiae of service providers' businesses. Additionally, because the provisions apply only to certain subsets of providers, their use would create asymmetric burdens within the industry.

Even the prior Commission, over the objections of public interest advocates, forbore from applying section 218 to broadband providers.[37] The agency determined that section 218 and related provisions were customarily used to implement traditional rate-making authority over common carriers and were unnecessary to protect consumers in the net neutrality context. Therefore, I do not want this Commission to be responsible for reviving its use. In fact, I recommend that it be included in a future forbearance item to ensure that the provision is removed from the books once and for all.

Preempting State and Local Requirements that Undermine our Federal Framework

Last, but certainly not least, the order contains a clear declaration that broadband is an interstate information service and a robust preemption analysis. The order makes plain that broadband will be subject to a uniform, national framework that promotes investment and innovation. This is eminently reasonable and completely consistent with the Constitution's Commerce Clause.[38] Broadband service is not confined to state boundaries and should not be constrained by a patchwork of state and local regulations.[39] And, this is particularly germane to wireless services where mobile devices and the

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[37] *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, para. 508 (2015).

[38] *See* U.S. CONST. art. 1 § 8, cl. 3. *See also* Roslyn Layton, *The Federalist and Anti-Federalist Arguments for Internet Freedom*, AEIdeas (Nov. 15, 2017), http://www.aei.org/publication/the-federalist-and-anti-federalist-arguments-for-internet-freedom/?utm_source=newsletter&utm_medium=paramount&utm_campaign=cict.

[39] *See* Verizon White Paper, FCC Authority to Preempt State Broadband Laws, WC Docket No. 17-108 (Oct. 25, 2017) (Verizon White Paper); McDowell Testimony at 12-15; CTIA Comments at 54-58; NCTA Comments at 63-68; Letter from USTelecom to FCC, WC Docket No. 17-108 (filed Nov. 17, 2017).

transmissions they carry can easily cross state lines.[40] This could have drastic results where it is possible for such communications to be prioritized in one state, but not in another. A hodgepodge of state rules could severely curtail not only the next generation of wireless systems that we have been working so hard to promote, but also the technologies that may rely on these networks in the future. Accordingly, any laws or regulations that conflict with or undermine federal broadband polices are preempted. Given my druthers, I would actually go even further on preemption,[41] but I could only carry the debate so far today.

This is not a new or novel position.[42] The 2015 order also announced a "firm intention to exercise our preemption authority to preclude states from imposing obligations on broadband service that are inconsistent with the carefully tailored regulatory scheme."[43] While the rules we adopt today are obviously different than the 2015 order, the concept that we will preempt inconsistent state and local requirements is well-established.[44]

Although the order does acknowledge an extremely limited state role in enforcing their traditional police powers, state actions that go beyond this realm will be subject to scrutiny and challenge. The order makes clear that any requirements akin to common carrier regulation are barred. At my request, the order also specifies that states may not adopt their own transparency requirements, whether labeled as such or under the guise of "consumer protection." I would also view state broadband privacy actions as outside the scope of what is permissible.[45] The purpose of this order is to restore a light-touch approach through deregulation. Therefore, any action to increase regulatory burdens on broadband providers would run directly counter to our efforts.[46]

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[40] *See* CTIA Comments at 55-56.

[41] *See id.* at 55, 56 (urging the Commission to "make clear that states and localities are barred from engaging in public utility regulation of broadband Internet access service – not only where their regulations expressly conflict with federal law, but also where they purport 'merely' to supplement federal goals or to advance federal aims" and to "establish that broadband regulation is an area in which 'the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject.'") (quoting *Hillsborough County v. Automated Medical Laboratories, Inc*., 471 U.S. 707, 713 (1985)).

[42] *See* Verizon White Paper at 5-9 ("[T]he Commission has regularly preempted state and local laws that it deemed to conflict with its exclusive jurisdiction and federal deregulatory policy. The Commission has done so in a variety of domains—including information services—for well over forty years. It has also done so on a categorical basis without necessarily engaging in a case-by-case assessment of particular state laws. And in doing so, the Commission has consistently met with deference from—and the approval of—federal courts. The Commission would not break new ground if it were to preempt state broadband laws that threaten to conflict with the restoration of a light-touch regulatory federal policy for broadband. Because broadband Internet access service is an inherently interstate service, and because state broadband laws conflict with a federal policy of light-touch regulation, the Commission can explicitly preempt state broadband laws.").

[43] *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, para. 433 (2015).

[44] *See* Verizon White Paper at 5-9; NCTA Comments at 63-68; Letter from Kathryn A. Zachem, Comcast to Marlene Dortch, FCC, WC Docket No, 17-108 (filed Nov. 15, 2017).

[45] *See* NCTA Comments at 67 (stating that "the Commission possesses the authority to preempt state and local regulation regardless of the federal framework it adopts—even if it refrains from imposing any ex ante open Internet rules at this time.").

[46] *See* Verizon White Paper at 2-4; McDowell Testimony at 14 (explaining that "state laws pose a direct threat to restoring the light-touch bipartisan regulatory framework that allowed the Internet to become the powerful consumer tool it is today").

I hope that most states and localities will not waste time and resources attempting to push the boundaries, but I realize that some will do so regardless. I expect the agency to be vigilant in identifying and pursuing these cases. I also commit to work closely with the Chairman and OGC to help quash any conflicts that arise.

Responding to Baseless Process Complaints

Before concluding, I want to address the atmospherics surrounding the process in this proceeding. I'll start with the number and identity of the comments submitted. Some would have us believe that the comment process has been irreparably tainted by the large number of fake comments. That view reflects a lack of understanding about the Administrative Procedure Act. The agency is required to consider and respond to all significant comments in the record.[47] Millions of comments that simply say something along the lines of "keep net neutrality" or other colorful language we can't say in public – whether they are submitted by real people, bots, or honey badgers – have no impact on the decision. As the order makes clear, we do not rely on any such comments. While it is possible that the agency may want to tighten the comment filing system going forward, the fact of the matter is that fake comments are not unique to this proceeding and had no impact on the substance or propriety of the decision.

To be clear, that does not mean that comments were ignored. I commend staff for the extra effort they had to take to sift through the extraneous comments. Many were simply obscenity laced tirades. Yet the order reflects a careful evaluation and response to all significant comments, including those that took a different position. Unlike the 2015 order where opposing viewpoints were relegated to footnotes and dismissed without commentary, often in the form of lengthy "but see" string cites, this order engages with and responds to such comments in a credible and substantive way.

Additionally, I disagree with the suggestion that the Commission should have held public hearings. Any member of the public that wanted to express a view could have done so through the standard comment process, and many, many did. Public hearings may bring out some additional people in a particular location, but it is inefficient for reaching large numbers of interested parties from around the country.

Finally, I see no merit in the suggestion that the agency should have delayed this vote until after the Ninth Circuit issues a decision en banc in the *FTC v. AT&T Mobility LLC* case. While the panel decision raised some questions about the FTC's jurisdiction, it was widely viewed with skepticism. Moreover, the court's order granting en banc rehearing of the panel decision rendered it a "legal nullity."[48] Therefore, the FTC is not precluded from enforcing ISPs' net neutrality commitments.[49] In short, there is no basis for a delay.

I commend the Chairman, his team, and our hardworking and diligent staff for the enormous effort to produce an order of this quality and significance. I am sure that this task required long days and much time spent away from family and friends, and I hope that you will be able to rest and reconnect over this holiday season. It is very deserved and you have my full respect and profound appreciation for your work. I vote to approve.

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[47] *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 553 (1978) ("[C]omments must be significant enough to step over a threshold requirement of materiality before any lack of consideration becomes of concern."); *National Ass'n of Manufacturers v. EPA*, 650 F.3d 921 (D.C. Cir. 2014) (noting an agency needs to address only "the more significant comments").

[48] *See* NCTA Comments at 55.

[49] *See id*.

STATEMENT OF
COMMISSIONER BRENDAN CARR

Re: *Restoring Internet Freedom*, WC Docket No. 17-108.

This is a great day for consumers, for innovation, and for freedom. We are reversing the Obama-era FCC's unprecedented decision to apply Title II regulations to the Internet. I am proud to help end this two-year experiment with heavy-handed regulation—this massive regulatory overreach.

Prior to the FCC's 2015 decision, consumers and innovators alike benefited from a free and openInternet. This was not because the government imposed utility-style regulation. It didn't. This was not because the FCC had a rule regulating "Internet conduct." It had none.

Instead, through Republican and Democratic administrations alike—including through the first six years of the Obama Administration—the FCC abided by a 20-year, bipartisan consensus that the government should not control or heavily regulate Internet access.

The Internet flourished under this framework. The private sector invested over $1.5 trillion in broadband networks. Consumers were protected and enjoyed the freedom to access the websites and content of their choosing. Every part of the Internet economy benefited—from innovators on the edge to startups and businesses of every size. Title II did not build that. Title II did not create the open Internet. And Title II is not the way to maintain it. The FCC's light regulatory touch—coupled with the robust consumer protections we restore today—supported our country's extraordinary Internet success story.

After a two-year detour—one that has seen investment decline, broadband deployments put on hold, and innovative new offerings shelved—it is great to see the FCC returning to this proven regulatory approach.

Now, there is no doubt that the debate over Internet regulation has generated significant public attention, as it should. Americans cherish the free and open Internet. But when it comes to this proceeding, far too many are simply fanning the false flames of fear. The apocalyptic rhetoric is quite something—even by Washington standards. No, the FCC is not ending the Internet. Or, as President Obama's first Federal Trade Commission Chairman recently put it, "the sky isn't falling. Consumers will remain protected, and the internet will flourish."[1]

What we're doing with today's vote is reversing a two-year old decision and returning to a tried-and-true regulatory framework—one that we know from our own experience works for consumers and for innovators.

Many of the myths that are out there go to what I call "the Great Title II head fake"—which is attributing to Title II things that it does not do.

Some claim, for instance, that Title II is preventing ISPs from selling bundled or curated plans that offer access to only a portion of the Internet. Not true. The FCC expressly stated that Title II allows providers to do just that.[2]

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[1] Jon Leibowitz, *Everybody Calm Down About Net Neutrality*, THE WALL STREET JOURNAL (Dec. 12, 2017), https://www.wsj.com/articles/everybody-calm-down-about-net-neutrality-1513124905.

[2] *See* Brief for Respondents at 145, n.53, *United States Telecom Ass'n v. FCC*, No. 15-1063 (D.C. Cir. Sept. 14, 2015) (The 2015 *Title II Order* "would not apply to a . . . company that advertised 'filtered' Internet access catering to a particular audience or that offered access only to curated content."), https://go.usa.gov/xnnYb; *see also* Opposition of Respondents to Petitions for Panel Rehearing and Rehearing En Banc at 28, *United States Telecom Ass'n v. FCC*, No. 15-1063 (D.C. Cir. Oct. 3, 2016) ("Of course, as the panel acknowledged, a broadband provider could '*choose* to exercise editorial discretion—for instance, by picking a limited set of websites to carry and offering

(continued….)

Some claim that Title II is preventing ISPs from increasing their prices for broadband. But the FCC emphasized that its Title II decision involves "no rate regulation."[3]

And some claim that Title II is preventing ISPs from blocking, throttling, or engaging in paid prioritization. Also, not true. The D.C. Circuit said that Title II allows ISPs to "block[] websites," to "throttl[e] . . . applications chosen by the ISP," and to "filter[]. . . content into fast (and slow) lanes based on the ISP's commercial interests" provided that they disclose those practices.[4]

In other words, Title II is not the thin line between where we are now and some *Mad Max* version of the Internet. There are reasons that consumers enjoyed a free and open Internet long before Title II. There are reasons why consumers are free to access any website or online content of their choosing. And those reasons will continue to hold true long after our Title II experiment ends.

What are they? Well, the D.C. Circuit has offered its view. When it observed that Title II allows ISPs to offer filtered Internet access, it also said that none were doing so because of fear of subscriber losses.[5] In other words, market forces, not the Title II rules, are regulating this conduct.

Now, there are some that will never accept market forces as a solution, either in the broadband marketplace or otherwise.

But for them, today's Order has some more good news. We are not relying on market forces alone. We are not giving ISPs free reign to dictate your online experience. Our decision today includes powerful legal checks.

First, Americans will enjoy robust online protections. When the FCC classified broadband as a Title II service in 2015, it divested the Federal Trade Commission of 100% of its consumer protection authority over ISPs, including its ability to police ISPs that engage in unfair or deceptive practices. Repealing Title II will restore those important protections for Internet openness.

Second, consumers will regain strong online privacy protections. Before the FCC stripped it of jurisdiction, the FTC—the nation's most experienced privacy enforcement agency—brought over 500 privacy enforcement actions, including against ISPs. By reversing Title II, consumers get those privacy protections back.

Third, federal antitrust law will protect against discriminatory conduct by ISPs. Section 1 of the Sherman Act renders anticompetitive agreements illegal. So, if ISPs reached agreements to act in a non-neutral manner by unfairly blocking, throttling, or discriminating against traffic, those agreements would be per se unlawful. Moreover, Section 2 of the Sherman Act makes it illegal for a vertically integrated ISP to anti-competitively favor its content or services over that of an unaffiliated business. As a former

(Continued from previous page)
that service as a curated internet experience . . . .' Any such provider, however, would be exempt from the [2015 Title II] open internet rules."), https://go.usa.gov/xnnY5.

[3] *See, e.g.*, *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601, 5612, para. 37 (2015), https://go.usa.gov/xnnYU.

[4] *United States Telecom Ass'n v. FCC*, 855 F.3d 381, 389-390 (D.C. Cir. 2017) (Srinivasan, J., and Tatel, J., concurring in the denial of rehearing *en banc*).

[5] *Id*. at 390 ("No party disputes that an ISP could do so if it wished, and no ISP has suggested an interest in doing so in this court. That may be for an understandable reason: a broadband provider representing that it will filter its customers' access to web content based on its own priorities might have serious concerns about its ability to attract subscribers.").

Obama Administration FTC Chairman recently said, this is a "formidable hammer against anyone who would harmfully block, throttle or prioritize traffic."[6]

Fourth, state consumer protection laws will apply and state attorneys general can bring actions against ISPs. These authorities will provide another strong set of legal protections against unfair business practices by ISPs.

In short, this is no free for all. This is no Thunderdome. The FCC is not killing the Internet.

While I have focused in this statement on the policy debate surrounding Title II, there is also a threshold legal question that the Commission must answer. Does Internet access service qualify as a Title I information service or a Title II telecommunications service? Thankfully, I do not need to go beyond what the Order itself says on this point. After all, in 2005, the Supreme Court expressly found that the FCC has authority to classify Internet access service as a Title I service.[7] This remains the only classification blessed by the Supreme Court. So our decision today rests on sound legal footing.

* * *

In closing, I want to look back to 2015 one more time. In October of that year, long before I became a Commissioner, I gave a speech where I talked about the FCC's Title II decision. I ended it by saying this:

> I am optimistic that the U.S. will return to the successful, light-touch approach to the Internet that spurred massive investments in our broadband infrastructure. Efforts are underway in both the courts and Congress to reverse the FCC's decision. And following next year's presidential election, the composition of the FCC could be substantially different than it is today.

Now, two years ago, I certainly did not imagine that I would be part of the FCC's new composition. But I am very grateful for the opportunity to serve. And I am grateful that my optimism back then has proven to be well-founded. I am glad to cast my vote today in favor of Internet freedom.

[6] Leibowitz, *supra* note 1.

[7] *Nat'l Cable & Telecomms. Ass'n. v. Brand X Servs*. 545 U.S. 967 (2005).

DISSENTING STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL

Re: *Restoring Internet Freedom*, WC Docket No. 17-108.

Net neutrality is internet freedom. I support that freedom. I dissent from this rash decision to roll back net neutrality rules. I dissent from the corrupt process that has brought us to this point. And I dissent from the contempt this agency has shown our citizens in pursuing this path today. This decision puts the Federal Communications Commission on the wrong side of history, the wrong side of the law, and the wrong side of the American public.

The future of the internet is the future of everything. That is because there is nothing in our commercial, social, and civic lives that has been untouched by its influence or unmoved by its power. And here in the United States our internet economy is the envy of the world. This is because it rests on a foundation of openness.

That openness is revolutionary. It means you can go where you want and do what you want online without your broadband provider getting in the way or making choices for you. It means every one of us can create without permission, build community beyond geography, organize without physical constraints, consume content we want when and where we want it, and share ideas not just around the corner but across the globe. I believe it is essential that we sustain this foundation of openness—and that is why I support net neutrality.

Net neutrality has deep origins in communications law and history. In the era when communications meant telephony, every call went through, and your phone company could not cut off your call or edit the content of your conversations. This guiding principle of nondiscrimination meant you were in control of the connections you made.

This principle continued as time advanced, technology changed, and Internet access became the dial tone of the digital age. So it was twelve years ago—when President George W. Bush was in the White House—that this agency put its first net neutrality policies on paper. In the decade that followed, the FCC revamped and revised its net neutrality rules, seeking to keep them current and find them a stable home in the law. In its 2015 order the FCC succeeded—because in the following year, in a 184-page opinion the agency's net neutrality rules were fully and completely upheld.

So our existing net neutrality policies have passed court muster. They are wildly popular. But today we wipe away this work, destroy this progress, and burn down time-tested values that have made our Internet economy the envy of the world.

As a result of today's misguided action, our broadband providers will get extraordinary new power from this agency. They will have the power to block websites, throttle services, and censor online content. They will have the right to discriminate and favor the internet traffic of those companies with whom they have pay-for-play arrangements and the right to consign all others to a slow and bumpy road.

Now our broadband providers will tell you they will never do these things. They say just trust us. But know this: they have the technical ability and business incentive to discriminate and manipulate your internet traffic. And now this agency gives them the legal green light to go ahead and do so.

This is not good. Not good for consumers. Not good for businesses. Not good for anyone who connects and creates online. Not good for the democratizing force that depends on openness to thrive. Moreover, it is not good for American leadership on the global stage of our new and complex digital world.

I'm not alone with these concerns. Everyone from the creator of the world wide web to religious leaders to governors and mayors of big cities and small towns to musicians to actors and actresses to entrepreneurs and academics and activists has registered their upset and anger. They are reeling at how

this agency could make this kind of mistake. They are wondering how it could be so tone deaf. And they are justifiably concerned that just a few unelected officials could make such vast and far-reaching decisions about the future of the internet.

So after erasing our net neutrality rules what is left? What recourse do consumers have?

We're told don't worry, competition will save us. But the FCC's own data show that our broadband markets are not competitive. Half of the households in this country have no choice of broadband provider. So if your broadband provider is blocking websites, you have no recourse. You have nowhere to go.

We're told don't worry, the Federal Trade Commission will save us. But the FTC is not the expert agency for communications. It has authority over unfair and deceptive practices. But to evade FTC review, all any broadband provider will need to do is add new provisions to the fine print in its terms of service. In addition, it is both costly and impractical to report difficulties to the FTC. By the time the FTC gets around to addressing them in court proceedings or enforcement actions, it's fair to assume that the start-ups and small entities wrestling with discriminatory treatment could be long gone. Moreover, what little authority the FTC has is now under question in the courts.

We're told don't worry, the state authorities will save us. But at the same time, the FCC all but clears the field with sweeping preemption of anything that resembles state or local consumer protection.

If the substance that got us to this point is bad, the process is even worse.

Let's talk about the public record.

The public has been making noise, speaking up, and raising a ruckus. We see it in the protests across the country and outside here today. We see it in how they lit up our phone lines, clogged our e-mail in-boxes, and jammed our online comment system. It might be messy, but whatever our disagreements are on this dais I hope we can agree this is democracy in action—and something we can all support.

To date, nearly 24 million comments have been filed in this proceeding. There is no record in the history of this agency that has attracted so many filings. But there's something foul in this record:

Two million comments feature stolen identities.

Half a million comments are from Russian addresses.

Fifty thousand consumer complaints are inexplicably missing from the record.

I think that's a problem. I think our record has been corrupted and our process for public participation lacks integrity. Nineteen state attorneys general agree. They have written us demanding we halt our vote until we investigate and get to the bottom of this mess. Identity theft is a crime under state and federal law—and while it is taking place this agency has turned a blind eye to its victims and callously told our fellow law enforcement officials it will not help.

This is not acceptable. It is a stain on the FCC and this proceeding. This issue is not going away. It needs to be addressed.

Finally, I worry that this decision and the process that brought us to this point is ugly. It's ugly in the cavalier disregard this agency has demonstrated to the public, the contempt it has shown for citizens who speak up, and the disdain it has for popular opinion. Unlike its predecessors this FCC has not held a single public hearing on net neutrality. There is no shortage of people who believe Washington is not listening to their concerns, their fears, and their desires. Add this agency to the list.

I, too, am frustrated. But here's a twist: I hear you. I listen to what callers are saying. I read the countless, individually written e-mails in my in-box, the posts online, and the very short and sometimes

very long letters. And I'm not going to give up—and neither should you. If the arc of history is long, we are going to bend this toward a more just outcome. In the courts. In Congress. Wherever we need to go to ensure that net neutrality stays the law of the land. Because if you are conservative or progressive, you benefit from internet openness. If you come from a small town or big city, you benefit from internet openness. If you are a company or non-profit, you benefit from internet openness. If you are a start-up or an established business, you benefit from internet openness. If you are a consumer or a creator, you benefit from internet openness. If you believe in democracy, you benefit from internet openness.

So let's persist. Let's fight. Let's not stop here or now. It's too important. The future depends on it.