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

In the Matter of	)	
Modernizing the E-rate Program for Schools and Libraries	)	WC Docket No. 13-184

ORDER

Adopted: October 5, 2017 **Released: October 5, 2017**

By the Chief, Wireline Competition Bureau:

I. INTRODUCTION

1. In this Order, the Wireline Competition Bureau (Bureau) adopts the proposals we made in the *FY2018 ESL Public Notice*[1] and releases the eligible services list (ESL) for funding year (FY) 2018 for the schools and libraries universal service support program (more commonly referred to as the E-rate program).[2] We also authorize the Universal Service Administrative Company (USAC) to open the annual application filing window no earlier than 60 days after release of this Order.[3]

II. BACKGROUND

2. Sections 254(c)(1), (c)(3), (h)(1)(B, and (h)(2) of the Communications Act collectively grant the Commission authority to specify the services that will be supported for eligible schools and libraries and to design the specific mechanisms for support.[4] Pursuant to this authority, the Commission delegated responsibility to the Bureau to update the ESL annually.[5] In the *FY2018 ESL Public Notice*, we sought comment on adding language to the ESL regarding eligibility for mixed-use equipment and on the categorization of inside wiring between different schools or libraries sharing a single building.[6] The comment cycle closed on August 7, 2017.[7]

III. DISCUSSION

3. Having considered the record, we update the ESL for FY2018 as described herein. We adopt the first change proposed in the *FY2018 ESL Public Notice* with additional clarification to address comments received. We also find that inside wiring for a single building that houses two or more schools

[1] *Wireline Competition Bureau Seeks Comment on Proposed Eligible Services List for the E-rate Program*, WC Docket No. 13-184, Public Notice, 32 FCC Rcd 5025 (WCB 2017) (*FY2018 ESL Public Notice*).

[2] *See* Appendix B, *Schools and Libraries Universal Service Support Mechanism, Eligible Services List for Funding Year 2018* (*FY2018 ESL*). The ESL specifies the services and products that are eligible for E-rate discounts.

[3] 47 CFR § 54.502(d) (requiring the final ESL to be released at least 60 days prior to the opening of the application filing window).

[4] 47 U.S.C. §§ 254(c)(1), (c)(3), (h)(1)(B), (h)(2).

[5] *See* 47 CFR § 54.502(d) (detailing the procedures for seeking comment on a draft ESL).

[6] *FY2018 ESL Public Notice*, 32 FCC Rcd at 5025-26.

[7] *Id.*

is eligible for Category Two support. We decline to make further changes to the ESL, including any of the changes proposed in the comments and reply comments received in response to the notice for the reasons discussed below.

4. First, we add to the ESL the proposed clarifying note regarding the eligibility of on-premises Network Equipment with both Category One and Category Two functionalities.[8] This note informs stakeholders that on-premises Network Equipment that has both Category One and Category Two functionalities is eligible for Category One support if it is necessary to make a Category One broadband service functional. The State E-rate Coordinators Alliance (SECA) requests in its comments that we identify specific types of mixed-eligibility equipment or provide examples of network designs to assist applicants.[9] We decline to provide a list of specific equipment or examples of network designs in the *FY2018 ESL* because such a list could be unnecessarily limiting. For the same reason, we decline to require USAC to post examples. We note, however, that applicants or service providers with questions about the equipment involved in a particular network configuration may contact USAC to discuss the specific facts necessary to make a determination about the categorization.

5. Additionally, we decline requests from commenters for certain additional services to be eligible as Category One services, or requests for certain services to be declared eligible for support without specification as to the applicable service category. Some commenters argue that we should read the clause "if it is necessary to make a Category One broadband service functional" to make network security or caching equipment eligible as Category One services.[10] We decline to read this clause so broadly. As noted in the *FY2016 ESL Order*, "fiber optic transceivers, network switches, network routers, and other modulating and routing electronics" are all examples of "equipment necessary to make a Category One broadband service *functional*."[11] Despite the value of caching and network security services, we find that these services enhance a Category One broadband service, but do not make the broadband service functional and therefore are not eligible as Network Equipment under Category One.[12] Other commenters seek the addition of other network security services to the ESL without discussing the applicable category of service.[13] Although the Commission kept the record open in this proceeding to allow for further comment on these types of services,[14] we again decline to add these services to the

[8] *FY2018 ESL Public Notice*, 32 FCC Rcd at 5025; *see* SECA Reply Comments at 2; Kellogg & Sovereign Consulting, LLC Comments at 2.

[9] SECA Reply Comments at 2 (requesting that network design drawings illustrating eligibility be made available on USAC's website).

[10] *See* ApplianSys Comments at 19 (seeking Category One support for caching services by stating that they are needed to make broadband service functional); iBoss Comments at 4-8 (seeking support for Secure Web Gateway networks in category one by arguing that they are "a necessary requirement to make Category One broadband service functional" by ensuring the service is not compromised); K-12 National Advisory Council on Cybersecurity Comments at 5-6 (same).

[11] *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, 30 FCC Rcd 9923, 9927-28, para. 13 (WCB 2015) (*FY2016 ESL Order*) (emphasis added).

[12] We recognize that caching services can be used to reduce or enhance the bandwidth needed for an applicant's Category One services. However, in its 2014 order, the Commission limited the eligibility of caching services to Category Two services and changing this eligibility would require the Commission to revisit this decision. *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, 29 FCC Rcd 8870, 8920, para. 130 (2014) (*2014 E-rate Order*).

[13] Aruba Comments at 1-2 (seeking support for policy management systems); AT&T Reply Comments at 3 (agreeing that security services should be funded by the program).

[14] *2014 E-rate Order*, 29 FCC Rcd at 8918, para. 121.

FY2018 ESL.[15] We also remind applicants and service providers that firewall services other than those offered as a standard part of eligible Internet access service are eligible only under Category Two.

6. Second, we clarify that applicants should classify inside wiring between two schools sharing a single building as Category Two services.[16] In the *FY2018 ESL Public Notice*,[17] we discussed the explanation provided in the *FY2017 ESL Order*, which stated that "[c]onnections between different schools with campuses located on the same property … are considered to be Category One digital transmission services,"[18] and the *February 2017 Order* waiving that Category One classification for inside wiring for different schools or libraries that share a single building.[19] We sought comment on the eligibility category for this inside wiring and how to reconcile the Commission's rules on this issue.[20] Only two commenters addressed this issue. AdTec, Inc. supports a second Bureau waiver allowing applicants to seek support for these connections under either category of service.[21] SECA suggests the Commission interpret the phrase "single school campus" in the definition of internal connections as allowing for a single campus containing multiple schools.[22] SECA contends that the definitions have not emphasized that a single school campus could only have one school, and that its proposed interpretation would allow multiple schools to share a single campus with internal connections linking the buildings.

7. We find that SECA's proposal cannot be reconciled with the plain language of E-rate program rules and precedent. In the *Fourth Order on Reconsideration*, the Commission distinguished between internal connections and wide area networks (WANs) by explaining that WANs "are not internal connections because they do not provide connections within a school or library."[23] It went on to explain that "connections between multiple instructional buildings on a single school campus would constitute internal connections. Connections between multiple separate schools, however, would not constitute internal connections and would instead be considered part of a wide area network."[24] Based on this language, we disagree that the Commission meant for a "single school campus" to include multiple schools, as there is no other reason for the use of the word "single" or to distinguish WAN connections between multiple schools from internal connections on a "single school campus."

8. That said, we find that inside wiring should be classified as a Category Two service without changing the definition of "campus" provided in the *FY2017 ESL Order*. First, the language in the *Fourth Order on Reconsideration* and the definition of a WAN in the program rules do not explicitly discuss wiring inside a single building that houses two different schools.[25] Instead, the definition states

[15] *Id.* (declining to designate network security services as eligible); *see also FY2016 ESL Order*, 30 FCC Rcd at 9929, para. 18 (declining to expand eligibility for other network security services); *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, 31 FCC Rcd 9767, 9769-70, para. 8, n.21 (WCB 2016) (*FY2017 ESL Order*).

[16] *FY2018 ESL Public Notice*, 32 FCC Rcd at 5025-26.

[17] *Id*.

[18] *FY2017 ESL Order*, 31 FCC Rcd at 9780, Appendix C.

[19] *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, 32 FCC Rcd 1189, 1192-94, paras. 9-10 (WCB 2017) (*February 2017 Order*).

[20] *FY2018 ESL Public Notice*, 32 FCC Rcd at 5025-26.

[21] AdTec, Inc. Comments at 1.

[22] SECA Reply Comments at 3-4.

[23] *Federal-State Joint Board on Universal Service,* CC Docket Nos. 96-45, 96-262, 94-1, 91-213, 95-72, Fourth Order on Reconsideration, Report and Order, 13 FCC Rcd 5318, 5440, para. 193 (1997) (*Universal Service Fourth Order on Reconsideration*).

[24] *Id.* at n.583.

[25] *Id.*; 47 CFR § 54.500 (Wide area network).

that a WAN is a network that provides connections from within an eligible school or library to a network that is *external* to it.[26] We now find that for the purposes of categorizing the inside wiring in a single building containing two or more schools, this wiring is generally not a WAN because it is not external to either school in the single building.[27] This finding is consistent with the definition of internal connections, as the inside wiring is within an instructional building of a single school campus, even if it is also within an instructional building of a second single school campus. We add language on page six of the *FY2018 ESL* to clarify that inside wiring is a Category Two service.[28]

9. We make no other changes to the ESL for FY2018. Several commenters support a request that the Bureau provide clarification regarding the procedures for an applicant seeking support for two funding requests for the same service during a transition between service providers.[29] We decline to address this issue in the ESL. Although both separate requests may be eligible for support, this issue is outside of the scope of the eligible services list. To the extent that stakeholders seek support for duplicative services from different service providers,[30] such support is inconsistent with the Commission's prior decisions.[31] In addition, for program administration purposes, applicants may not seek reimbursement for both services during any period of overlap when transitioning from one provider to another.[32]

10. We decline to make further changes in response to comments requesting that we add other services to the ESL or provide additional clarifications that are contrary to the Commission's decisions in 2014.[33] For example, T-Mobile requests that the Bureau add several clarifications to the ESL

[26] 47 CFR § 54.500 (providing that a wide area network is a "network that provides connections from one or more computers within an eligible school or library to one or more computers or networks that are external to such eligible school or library….").

[27] It is possible that two schools in a single building could be separated by multiple floors and a service provider might use an external WAN to connect the two local area networks. In this case, the applicant could seek Category One support for this connection, but be prepared to show why it is eligible in this manner during review.

[28] *FY2018 ESL*, Appendix B at 6 ("Connections between different schools with campuses located on the same property (e.g., an elementary school and middle school located on the same property) are considered to be Category One digital transmission services, *unless they share the same building*.") (emphasis added).

[29] *See* Kellogg & Sovereign Consulting, LLC Comments at 2-4. *See also*, *e.g.*, AT&T Reply Comments at 1-2; SECA Reply Comments at 5-6; Southeastern Public Library System of Oklahoma Comments; Workable Programs and Systems, Inc. Comments.

[30] SECA Reply Comments at 6 (arguing that applicants may need Internet access service from multiple vendors and should be allowed to demonstrate cost-effectiveness).

[31] *See Schools and Libraries Universal Support Mechanism*, CC Docket No. 02-6, Second Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 9202, 9209-11, paras. 22-24 (2003) (declining to support duplicative services); *Requests for Review by Macomb Intermediate School District Technology Consortium*, *Schools and Libraries Universal Support Mechanism*, CC Docket No. 02-6, Order, 22 FCC Rcd 8771 (2007) (denying a request for review of the denial of support for redundant networks).

[32] *See* Kellogg & Sovereign, LLC Comments at 5 (seeking support for the period of time remaining on a contract after the disconnect notice).

[33] *See, e.g.*, ETC Video Comments at 1-2 (requesting that the Commission reestablish support for video components for the purpose of digital learning, which the Commission removed from ESL in the *2014 E-rate Order*); Commenters again advocated against the phase down of support for voice services. *See, e.g.*, Denver Public Schools Comments at 1; Don DeVine Comments; T-Mobile Reply Comments at 9-10 (seeking support for cellular voice service for certain staff members for emergency situations). The Commission adopted the phase down of support for voice services in 2014 with a requirement for a report on the effects of the first two years of the phase down due no later than by October 1, 2017. Without further action by the Commission, there will be no support for voice services beginning in funding year 2019. *See 2014 E-rate Order*, 29 FCC Rcd at 8926, 2828, paras. 140, 143.

regarding the cost-effectiveness of mobile broadband services.[34] First, the Commission has already stated that applicants seeking funding for data plans "should compare the cost of all components necessary to deliver connectivity to the end user device…."[35] Second, as we stated in the *FY2016 ESL Order*, we do not agree that the absence of bids for a wireless local area network (WLAN) establishes cost effectiveness of a mobile broadband service.[36] Finally, we do not see a need for additional language regarding duplicative services in the *FY2018 ESL*. As stated by the Commission, "seeking support for data plans or air cards for mobile devices for use in a school or library with an existing fixed broadband connection and WLAN implicates our prohibition on requests for duplicative services."[37] Duplicative services are services that deliver the same functionality to the same population in the same location during the same period of time.[38] When two funding requests implicate the prohibition on requests for duplicative services, USAC will seek additional information from the applicant during review of the application to determine if the services are duplicative.

11. We similarly decline several requests submitted by Aruba. Aruba requests that self-provisioned network management be added to the ESL as eligible services.[39] As explained in the *FY2016 ESL Order,* the Commission determined in the *2014 E-rate Order* that network management and operation services are only eligible when provided by a third party as part of eligible managed internal broadband services.[40] Aruba also seeks support covering the entire cost of multi-year basic maintenance of internal connections contracts in the first funding year of the contract,[41] which is contrary to the program's rules.[42] Except for bug fixes, security patches, and technical support, we also remind applicants that the E-rate program will only provide support for actual work performed under a contract.[43]

IV. ORDERING CLAUSE

12. ACCORDINGLY, IT IS ORDERED, that pursuant to the authority contained in sections 1 through 4, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 254, 303(r), and 403, and sections 0.91 and 54.502 of the Commission's rules, 47 CFR §§ 0.91 and

[34] T-Mobile Reply Comments at 7-9 (seeking additional language in the *FY2018 ESL* regarding how to demonstrate the cost-effectiveness of mobile broadband services in comparison to fixed services, whether receiving no bids for internal connections demonstrates cost-effectiveness, and consideration of language clarifying that mobile broadband services are not necessarily duplicative of a fixed broadband connection).

[35] *See Modernizing the E-rate Program for Schools and Libraries*; *Connect America Fund*, WC Docket Nos. 13-184 and 10-90, Second Report and Order and Order on Reconsideration, 29 FCC Rcd 15538, 15601, para. 158 (2014) (*2014 Second E-rate Order*) (adding that "[s]chools with existing fixed broadband connections should limit this comparison to the recurring cost of their current broadband connection plus the added cost of any upgrades to their broadband connections and any additional or updated internal connections needed to deploy a sufficiently robust WLAN with all capital investments amortized over their expected lifespan").

[36] *See FY2016 ESL Order*, 30 FCC Rcd at 9928-29, n.45.

[37] *2014 Second E-rate Order*, 29 FCC Rcd at 15601, para 158.

[38] *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Second Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 9202, 9209, para. 22 (2003).

[39] Aruba Comments at 2.

[40] *FY2016 ESL Order*, 30 FCC Rcd at 9931, para. 21.

[41] Aruba Comments at 2 (requesting support for multi-year basic maintenance of internal connections contracts in a single funding year).

[42] *See* 47 CFR § 54.507(e) (stating that to the extent that applicants sign multi-year contracts, the program will only "commit funds to cover the pro rata portion of such a long term contract scheduled to be delivered during the funding year for which universal service support is sought").

[43] *FY2018 ESL*, Appendix B at 5.

54.502, this Order is ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Kris Anne Monteith
Chief
Wireline Competition Bureau

APPENDIX A

List of Commenters

Comments and Reply Comments in Response to the *FY2018 ESL Public Notice*

WC Docket No. 13-184

Commenters

1. AdTec, Inc.
2. ApplianSys LLC
3. Aruba, a Hewlett Packard Enterprise company (Aruba)
4. Commerce Public Schools
5. Denver Public Schools District 1
6. Don DeVine
7. Duncan Public Library
8. ETCVideo
9. Frisco Independent School District
10. Greg Faris
11. Harmony School District 21
12. Hulbert Public Schools
13. iBoss Distributed Gateway Platform (iBoss)
14. John C. Fremont Library
15. Kellogg & Sovereign Consulting, LLC
16. K-12 National Advisory Council on Cybersecurity
17. Luther Public Schools
18. Moore Public Schools
19. Pryor Public Schools
20. Rhea County Department of Education
21. Sand Springs Public Schools
22. Southeastern Public Library System of Oklahoma
23. Stillwater Public Schools
24. Workable Programs and Systems, Inc.

Reply Commenters

1. AT&T Services, Inc. (AT&T)
2. State E-rate Coordinators' Alliance (SECA)
3. T-Mobile USA, Inc. (T-Mobile)

APPENDIX B

Eligible Services List for Funding Year 2018
Schools and Libraries Universal Service Support Mechanism

(WC Docket No. 13-184)

The Federal Communications Commission's (FCC's) rules provide that all services that are eligible to receive discounts under the Schools and Libraries Universal Service Support Mechanism (otherwise known as the E-rate program or E-rate) are listed in this Eligible Services List (ESL). The E-rate program is administered by the Universal Service Administrative Company (USAC). Eligible schools and libraries may seek E-rate support for eligible Category One telecommunications services, telecommunications, and Internet access, and Category Two internal connections, basic maintenance, and managed internal broadband services as identified herein. 47 CFR §§ 54.5, 54.500, and 54.502(a).

Additional guidance from USAC about the E-rate application process and about eligible services, including a glossary of terms, is available at USAC's website at http://www.usac.org/sl/. The documents on USAC's website are not incorporated by reference into the ESL and do not bind the Commission. Thus, they will not be used to determine whether a service or product is eligible. Applicants and service providers are free to refer to those documents, but just for informal guidance. This ESL applies to funding requests for Funding Year 2018.

Category One

The first category of supported services, Category One, includes the services needed to support broadband connectivity to schools and libraries. Eligible Category One services are listed in the entries for data transmission services and Internet access and voice services. This category consists of the services that provide broadband to eligible locations including data links that connect multiple points, services used to connect eligible locations to the Internet, and services that provide basic conduit access to the Internet. With the exception of leased dark fiber and self-provisioned broadband networks, maintenance and technical support appropriate to maintain reliable operation are only eligible for support when provided as a component of these services.

Data Transmission Services and Internet Access

Digital transmission services and Internet access are eligible in Category One. These services include:

- Asynchronous Transfer Mode (ATM)
- Broadband over Power Lines
- Cable Modem
- Digital Subscriber Line (DSL)
- DS-1 (T-1), DS-3 (T-3), and Fractional T-1 or T-3
- Ethernet
- Integrated Services Digital Network (ISDN)
- Leased Lit Fiber
- Leased Dark Fiber (including dark fiber indefeasible rights of use (IRUs) for a set term)
- Self-Provisioned Broadband Networks
- Frame Relay
- Multi-Protocol Label Switching (MPLS)
- OC-1, OC-3, OC-12, OC-n
- Satellite Service
- Switched Multimegabit Data Service

- Telephone dial-up
- Wireless services (e.g., microwave)

Notes: (1) E-rate support is available for leased lit fiber, leased dark fiber, and self-provisioned broadband networks as described in the *2014 Second E-rate Order* (FCC 14-189). Eligible costs include monthly charges, special construction, installation and activation charges, modulating electronics and other equipment necessary to make a Category One broadband service functional ("Network Equipment"), and maintenance and operation charges. Network Equipment and maintenance and operation costs for existing networks are eligible. All equipment and services, including maintenance and operation, must be competitively bid.

(2) Applicants that seek bids for leased dark fiber must also seek bids for leased lit fiber service and fully consider all responsive bids. Similarly, applicants that seek bids for self-provisioned broadband networks must also seek bids for the needed connectivity via services provided over third-party networks, and fully consider all responsive bids.

(3) Applicants may seek special construction funding for the upfront, non-recurring costs for the deployment of new or upgraded facilities. The eligible components of special construction are construction of network facilities, design and engineering, and project management.

(4) Staff salaries and labor costs for personnel of the applicant or underlying beneficiary are not E-rate eligible.

Eligible Voice Services

Eligible voice services are subject to an annual 20 percentage point phase down of E-rate support that began in FY 2015, as described in the *2014 E-rate Order*. For FY 2018, the effective discount rate will be 80 percentage points less than other Category One services. The reduced discount rate for voice services will apply to all applicants and all costs for the provision of telephone services and circuit capacity dedicated to providing voice services including:

- Centrex
- Integrated Services Digital Network (ISDN)
- Interconnected voice over Internet protocol (VoIP)
- Local, long distance, and 800 (toll-free) service
- Plain old telephone service (POTS)
- Radio loop
- Satellite telephone service
- Shared telephone service (only the portion of the shared services relating to the eligible use and location may receive discounts)
- Wireless telephone service, including cellular voice and excluding data and text messaging

Category Two

The second category of equipment and services eligible for E-rate support, Category Two, includes the internal connections needed for broadband connectivity within schools and libraries. Support is limited to the internal connections necessary to bring broadband into, and provide it throughout, schools and libraries. These are broadband connections used for educational purposes within, between, or among instructional buildings that comprise a school campus (as defined below) or library branch, and basic maintenance of these connections, as well as services that manage and operate owned or leased broadband internal connections (e.g., managed internal broadband services or managed Wi-Fi). Category Two support is subject to per-school or per-library budgets as set forth in 47 CFR § 54.502. The eligible components and services in Category Two are:

Eligible Broadband Internal Connections

- Access points used in a local area network (LAN) or wireless local area network (WLAN) environment (such as wireless access points)
- Antennas, cabling, connectors, and related components used for internal broadband connections
- Caching
- Firewall services and components separate from basic firewall protection provided as a standard component of a vendor's Internet access service.
- Switches
- Routers
- Racks
- Uninterruptible Power Supply (UPS)/Battery Backup
- Wireless controller systems
- Software supporting the components on this list used to distribute high-speed broadband throughout school buildings and libraries

Notes: (1) Functionalities listed above that can be virtualized in the cloud, and equipment that combines eligible functionalities, like routing and switching, are also eligible.

(2) A manufacturer's multi-year warranty for a period up to three years that is provided as an integral part of an eligible component, without a separately identifiable cost, may be included in the cost of the component.

(3) Caching is defined as a method that stores recently accessed information. Caching stores information locally so that the information is accessible more quickly than if transmitted across a network from a distance. A caching service or equipment that provides caching, including servers necessary for the provision of caching, is eligible for funding.

Eligible Managed Internal Broadband Services

- Services provided by a third party for the operation, management, and monitoring of eligible broadband internal connections are eligible managed internal broadband services (e.g., managed Wi-Fi).
- E-rate support is limited to eligible expenses or portions of expenses that directly support and are necessary for the broadband connectivity within schools and libraries. Eligible expenses include the management and operation of the LAN/WLAN, including installation, activation and initial configuration of eligible components, and on-site training on the use of eligible equipment.
- In some eligible managed services models, the third-party manager owns and installs the equipment and school and library applicants lease the equipment as part of the managed services contract. In other cases, the school or library may own the equipment, but have a third party manage it for them.

Basic Maintenance of Eligible Broadband Internal Connections

E-rate support is available for basic maintenance and technical support appropriate to maintain reliable operation when provided for eligible broadband internal connections.

The following basic maintenance services are eligible:

- Repair and upkeep of eligible hardware
- Wire and cable maintenance
- Configuration changes
- Basic technical support including online and telephone based technical support
- Software upgrades and patches including bug fixes and security patches

Eligibility Limitations for Category Two:

Eligibility limitations for managed internal broadband services – The equipment eligible for support as part of a managed internal broadband service may only include equipment listed as a broadband internal connections component above. Upfront charges that are part of a managed service contract are eligible for E-rate support except to the extent that the upfront charges are for any ineligible internal connections (e.g., servers other than those that are necessary to provide caching) which, if included in the contract, must be cost allocated out of any funding request.

Eligibility limitations for basic maintenance – Basic maintenance is eligible for support only if it is a component of a maintenance agreement or contract for eligible broadband internal connections. The agreement or contract must specifically identify the eligible internal connections covered, including product name, model number, and location. Support for basic maintenance will be paid for the actual work performed under the agreement or contract. Support for bug fixes, security patches, and technical support is not subject to this limitation. Basic maintenance does not include:

- Services that maintain ineligible equipment
- Upfront estimates that cover the full cost of every piece of eligible equipment
- Services that enhance the utility of equipment beyond the transport of information, or diagnostic services in excess of those necessary to maintain the equipment's ability to transport information
- Network management services, including 24-hour network monitoring
- On-site technical support (i.e., contractor duty station at the applicant site) unless applicants present sufficient evidence of cost-effectiveness
- Unbundled warranties

Eligibility Explanations for Certain Category One and Category Two Services:

Internet access – Eligible Internet access may include features such as basic firewall protection, domain name service, and dynamic host configuration when these features are provided as a standard component of a vendor's Internet access service. Firewall protection that is provided by a vendor other than the Internet access provider or priced out separately will be considered a Category Two internal connections component. Examples of items that are ineligible components of Internet access include applications, content, e-mail, and end-user devices and equipment such as computers, laptops, and tablets.

Wireless services and wireless Internet access – As clarified in the *2014 Second E-rate Order*, data plans and air cards for mobile devices are eligible only in instances when the school or library seeking support demonstrates that the individual data plans are the most cost-effective option for providing internal broadband access for mobile devices at schools and libraries. Applicants should compare the cost of data plans or air cards for mobile devices to the total cost of all components necessary to deliver connectivity to the end user device, including the cost of Internet access and data transmission service to the school or library. Seeking support for data plans or air cards for mobile devices for use in a school or library with an existing broadband connection and wireless local area network implicates the E-rate program's prohibition on requests for duplicative services.

Off-campus use, even if used for an educational purpose, is ineligible for support and must be cost allocated out of any funding request.

Managed internal broadband services, such as managed Wi-Fi, are eligible only for Category Two support.

Connections between buildings of a single school – The classification of connections between multiple buildings of a single school is determined by whether the buildings are located on the same campus. A "campus" is defined as the geographically contiguous grounds where the instructional buildings of a single eligible school are located. A single school may have multiple campuses if it has instructional buildings located on grounds that are not geographically contiguous. Different schools located on the same grounds do not comprise a single campus. The portion of the grounds occupied by the instructional buildings for each school is a campus for that school.

- Connections between buildings on different campuses of a single school are considered to be Category One digital transmission services.
- Connections between different schools with campuses located on the same property (e.g., an elementary school and middle school located on the same property) are considered to be Category One digital transmission services, unless they share the same building.
- Connections between buildings of a single school on the same campus are considered to be Category Two internal connections.

Network equipment with mixed eligibility – On-premises equipment that connects to a Category Two-eligible LAN is eligible for Category One support if it is necessary to make a Category One broadband service functional. If the price for components that enable the LAN can be isolated from the price of the components that enable the Category One service, those costs should be cost-allocated out of the Category One funding request.

Miscellaneous

As described below, various miscellaneous services associated with Category One or Category Two are eligible for support. Applicants should request eligible miscellaneous services in the same category as the associated service being obtained or installed.

Fees

Fees and charges that are a necessary component of an eligible product or service are eligible including:

- Change fees
- Contingency fees are eligible if they are reasonable and a regular business practice of the service provider. Contingency fees will be reimbursed only if the work is performed.
- Freight assurance fees
- Lease or rental fees on eligible equipment
- Per diem and/or travel time costs are eligible only if a contract with a vendor for the eligible product or services specifically provides for these costs
- Shipping charges
- Taxes, surcharges, and other similar, reasonable charges incurred in obtaining an eligible product or service are eligible. This includes customer charges for universal service fees, but does not include additional charges for universal service administration.

Installation, Activation, and Initial Configuration

Installation, activation, and initial configuration of eligible components are eligible. These services may include:

- Design and engineering costs if these services are provided as an integral component of the installation of the relevant services
- Project management costs if these services are provided as an integral component of the installation of the relevant services
- On-site training is eligible as a part of installation services but only if it is basic instruction on the use of eligible equipment, directly associated with equipment installation, and is part of the contract or agreement for the equipment. Training must occur coincidently or within a reasonable time after installation.