

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Modernizing the E-Rate Program for Schools and) WC Docket No. 13-184
Libraries)
)
Wireline Competition Bureau Seeks Comment on)
Proposed Eligible Services List for the E-Rate)
Program)
)

To: The Chief, Wireline Competition Bureau

COMMENTS OF T-MOBILE USA, INC.

T-Mobile USA, Inc. (“T-Mobile”)¹ submits these reply comments in response to the Wireline Competition Bureau’s (“Bureau’s”) public notice regarding the proposed E-rate Eligible Services List (“ESL”) for funding year 2018.² As discussed in more detail below, there is no basis to require E-rate applicants to continue to demonstrate that wireless solutions are more cost-effective than fixed-line Wi-Fi solutions but, if the Commission is going to maintain this requirement, the ESL must make clearer to applicants how to conduct such cost comparisons so that the universal service fund (“USF”) does not overpay. The initial comments in response to the Public Notice demonstrate that granting T-Mobile’s long-pending petition for reconsideration of the *E-rate Reform Order* will be an important mechanism for ensuring that the E-rate program

¹ T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc., a publicly traded company.

² *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 (2017) (“Public Notice”).

can operate in a more cost-effective manner.³ Pending such action, however, the Commission should (1) provide more detail to applicants on how to amortize the very high upfront costs of wireline networks; (2) make clear that applicants may select a wireless bid if no wireline bids were received; and (3) clarify that an applicant may appropriately use both Wi-Fi and wireless technology under appropriate circumstances without violating the ban on duplicative services. T-Mobile also urges the Commission to carefully consider parties' requests that it reconsider the voice services phase-down.

I. THE GUIDANCE IN THE ESL SHOULD BE UPDATED TO ENSURE THAT APPLICANTS MAKE ACCURATE COST-EFFECTIVENESS COMPARISONS

Although the Draft ESL notes that applicants should compare the cost of mobile solutions “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,”⁴ this description does not provide enough information to ensure that applicants prepare accurate cost comparisons. Particularly given the lower prices and increased capacity of commercial wireless services since the Commission adopted the *E-rate Reform Order*, the Commission should provide additional guidance regarding how to make cost-comparisons in a way that ensures that the lowest-cost solution is selected.

A. Wireless Services Are a More Cost-Effective E-rate Solution Now Than They Were When the Commission Considered the *E-rate Reform Order*

In the 2014 *E-rate Reform Order*, the Commission concluded that “it is generally not cost effective for applicants to purchase on-campus use individual data plans” from wireless carriers

³ Petition for Reconsideration and Clarification of T-Mobile USA, Inc., WC Docket No. 13-184 (filed March 6, 2015) (“T-Mobile Petition”). *See also* Comments of T-Mobile USA, Inc., WC Docket No. 13-184 (filed June 22, 2015) (“T-Mobile 2015 ESL Comments”).

⁴ Draft ESL at 8.

and that wireless data plans may “not provide users with enough high-speed connectivity to access certain educational and information materials.”⁵ This conclusion, based on a record that is now over four years old, is no longer accurate (to the extent it ever was when all relevant costs and services were taken into account). The resulting presumption – that wireless services are likely to be less cost-effective and thus require a separate cost-justification showing – has deterred most applicants from choosing wireless out of fear that they may be denied funding and lose the opportunity to secure another solution. Indeed, based on T-Mobile’s experience, since the presumption was adopted there has been a precipitous decline in the number of schools and libraries that select mobile services in the E-rate bidding process, and an even bigger decline in the funds committed by USAC for wireless E-rate. At the same time, costs in the E-rate program are going up instead of down, even as wireless technology provides more choices that are economically more advantageous for schools and libraries. The Commission can correct this erroneous presumption by granting the T-Mobile Petition but, pending such action, can refine the ESL to minimize the damage under the current rules.

In the four years since the record closed in the *E-rate Reform Order*, the mobile broadband market has evolved considerably. Wireless providers including T-Mobile are in a better position than ever to provide fast and reliable connections to schools and libraries at a significantly lower price than prior years. T-Mobile has deployed a state-of-the-art, nationwide LTE network using low-band spectrum it purchased from Verizon and other carriers starting in 2014. Similarly, T-Mobile plans to have more than 1 million square miles of the 600 MHz spectrum it just purchased in the Commission’s Incentive Auction clear and ready for

⁵ See *Modernizing the E-rate Program for Schools and Libraries*, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8932-33 ¶ 151 (2014) (“*E-rate Modernization Order*”).

deployment by year-end. T-Mobile also expects to begin 5G deployment as early as 2019 on the newly-acquired 600 MHz bands as well as other mid-band and high-band spectrum.

In addition, prices for our mobile Internet service plans have dropped drastically in recent years. For example, T-Mobile charged \$70 for a 10.5 GB plan in 2013, but now charges as low as \$20 for unlimited data for government and educational customers. Thus, T-Mobile is in an excellent position to provide high-speed, reliable, and affordable connections to schools and libraries throughout the country, with improvements and enhancements in the speed and capacity of our network to materially accelerate. As such, T-Mobile's service offerings to government and educational customers will continue to improve over the next few years at a much more rapid pace than those of our wireline counterparts.

These changes cast considerable doubt on the policy basis for requiring applicants wishing to select wireless solutions to provide a cost-effectiveness showing at all. At minimum, however, the rapid and broad technological advancements in wireless broadband technology emphasize the need for the Commission to provide further guidance on how applicants should perform cost-benefits analyses to minimize the risk that applicants will select fixed-line solutions that are less situationally effective, more expensive and impose a greater burden on the fund. Indeed, all E-rate bids, including wireless and wireline, should be evaluated, compared and analyzed in a truly technologically neutral manner.⁶ The E-rate competitive bidding rules already mandate that price must be the primary factor in bid evaluation.⁷ Evaluating wireless

⁶ See *Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd 8776, 8801 ¶ 47 (1997) (subsequent history omitted) (“Universal service support mechanisms and rules should be competitively neutral . . . , [meaning] that universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another”).

⁷ 47 C.F.R. § 54.503(c)(2)(ii)(B).

bids on a level playing field with all other bids and selecting the most cost-effective option will both reduce costs for all USF contributors and bring greater benefits to students and educators.

B. The ESL Must Provide More Guidance to Ensure Accurate Cost Comparisons

To ensure that the USF does not overpay for fixed-line services that are more expensive than a wireless solution, the Commission should add additional language to the ESL that provides greater detail to guide applicants in their obligation to perform a valid cost comparison of bids, factoring all costs into the analysis.

Wi-Fi solutions have significant additional costs that must be factored into the cost-effectiveness analysis. Indeed, even as USAC is eliminating cost recovery for voice and wireless services, E-rate funding commitments are steadily increasing due to money allocated for internal connections and maintenance.⁸ Likewise, nearly half the comments filed in response to the Public Notice urged the Commission to ensure that schools and libraries using Wi-Fi can receive E-rate support for network security solutions.⁹ As the K-12 National Advisory Council on Cybersecurity observes, “[m]illions of students across the U.S. are connecting to unprotected broadband services – jeopardizing their online safety and the integrity and reliability of public schools and wide area networks (LAN/WAN).”¹⁰ By contrast, commercial wireless broadband networks provide comprehensive security functionality as part of the monthly price, so that

⁸ In 2015 and 2016, USAC allocated \$1,268,987,916.74 and \$931,871,059.07, respectively, for internal connections and maintenance of Wi-Fi/Fixed solutions, up from zero dollars in previous years. <http://www.usac.org/sl/tools/commitments-search/AdvancedNotification.aspx>.

⁹ See K-12 National Advisory Council on Cybersecurity Comments; Aruba Comments; iBoss Distributed Gateway Platform Comments. Unless otherwise noted, all references herein to parties’ “Comments” refer to comments filed in response to the Public Notice on or about July 21, 2017.

¹⁰ K-12 National Advisory Council on Cybersecurity Comments at 3.

additional costs to the fund are not needed.¹¹ Thus, the ESL should make clear that all of the costs of a wireline solution, including any network security solutions, must be included in the cost-effectiveness comparison.

In addition, as T-Mobile previously has argued, it is crucial for the Commission to include greater direction in the ESL regarding how applicants should amortize the enormous upfront costs of Wi-Fi networks.¹² As the T-Mobile Petition describes, fixed broadband services combined with wireless local area network (“WLAN”) infrastructure have very different cost structures from mobile broadband in that applicants choosing mobile broadband have the benefit of consistent monthly costs, while applicants using a fixed broadband solution with a WLAN face significant upfront costs.¹³

Whether applicants “should consider the upfront costs of fixed networks entirely in the first-year cost comparison or spread those costs over time inevitably will affect the accuracy and validity of any comparison between fixed and mobile solutions.”¹⁴ The proposed ESL, however, does not even acknowledge the significant discrepancy in cost structure between the two technologies, let alone provide any guidance to applicants about whether and, if so, how to amortize the upfront costs of fixed networks with WLAN components. As the T-Mobile Petition

¹¹ See T-Mobile Petition at 6; T-Mobile 2015 ESL Comments at 3.

¹² T-Mobile 2015 ESL Comments at 2.

¹³ T-Mobile Petition at 3. In its petition, T-Mobile has also urged the Commission to develop a record to provide guidance to applicants on the appropriate amortization periods for different network components, *id.* at 5-6, and to provide a template for applicants to use in formulating cost comparisons (consistent with prior USAC cost-effectiveness templates). *Id.* at 7 and Exh. B.

¹⁴ *Id.* at 4.

demonstrates, amortizing these upfront costs of Wi-Fi equipment over varying periods can have a decisive impact on any cost comparison between a fixed solution and a mobile solution.¹⁵

Pending the provision of more detailed guidance from the Commission, it is all the more important that the ESL direct applicants to (1) ensure that they include all of the up-front network costs, including soft costs such as those associated with WLAN network security in their cost comparison and (2) amortize the costs of Wi-Fi equipment *over the reasonable life of the equipment*, consistent with existing USAC guidance on cost-effectiveness comparisons. The Bureau should revise the ESL to include this information.

C. The ESL Should Make Clear That Applicants Have Satisfied the Cost-Effectiveness Showing Requirement for Mobile Broadband If They Receive No Bids for a WLAN Solution

The ESL should specify that the requirement to “demonstrat[e] that the individual data plans are the most cost-effective option for providing internal broadband access for mobile devices at schools and libraries”¹⁶ is satisfied if they seek bids for both fixed WLAN solutions and mobile solutions, but no fixed WLAN bids are received. As T-Mobile has observed, a lack of bids demonstrates a strong likelihood that a WLAN solution is infeasible and, in any event, there is “no justification to require applicants that receive only mobile broadband bids to take additional steps in order to show that the bid is cost-effective.”¹⁷

Accordingly, the Bureau should add a sentence to the directives regarding “Wireless services and wireless Internet access” on page 8 of the Draft ESL indicating that an applicant that seeks bids for both a fixed broadband/Wi-Fi connection and mobile data plans/air cards, and

¹⁵ *Id.* at 5 and Exh. A.

¹⁶ Public Notice, Attachment at 4.

¹⁷ T-Mobile Petition at 8-9.

receives only mobile data plan or air card bids, has satisfied the cost-effectiveness showing requirement. This change is consistent with the Commission's orders and the Bureau can make it even while the T-Mobile Petition remains pending.

II. THE ESL SHOULD CLARIFY THAT MOBILE BROADBAND SERVICES ARE NOT NECESSARILY DUPLICATIVE OF A FIXED BROADBAND CONNECTION

The draft ESL states: "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 request[s] for duplicative services."¹⁸ As T-Mobile has pointed out, however, "some schools and libraries may be able to deploy a WLAN in parts of their buildings but not others," such that the "inquiry does not lend itself to a conclusory determination, and should be performed *below the individual school [or library] level.*"¹⁹ T-Mobile included two specific examples of schools that had WLAN solutions in part of their facilities, yet the most cost-effective way to serve their remaining facilities was with mobile broadband.²⁰

The language in the draft ESL, however, suggests that schools and libraries may never seek to serve part of their facilities with mobile broadband solutions if another part of their facilities is served with fixed broadband and a WLAN. This conclusion ignores instances where a combination of broadband solutions is the most cost-effective way to meet the school or library's broadband needs, and therefore would be inconsistent with the Commission's

¹⁸ Public Notice, Attachment at 8.

¹⁹ T-Mobile Petition at 9 (emphasis added).

²⁰ *Id.* at 9-11

conclusion that applicants may select mobile broadband solutions where they are the most cost-effective option.

Thus, the Bureau should modify the ESL to include language clarifying that applicants may “present specific facts and circumstances that explain the need for mobile connections in certain buildings, in parts of buildings, or on the campus as a whole based upon individualized circumstances that demonstrate that a mobile wireless solution is more cost-effective and not duplicative of a fixed broadband connection.”²¹ As T-Mobile has demonstrated, this type of showing is consistent with the Commission’s statement that use of both fixed broadband connections and mobile broadband connections “implicates” – but does not necessarily *violate* – the proscription on funding for duplicative services. Thus, the Bureau can include this clarification even as the T-Mobile Petition remains pending.

III. THE COMMISSION SHOULD RECONSIDER THE VOICE PHASE-DOWN

The ESL points out that the discount rate for voice services will be 80 percentage points less than other category one services, resulting in a maximum benefit of 10% for only the neediest of schools.²² In 2019, support for voice will be completely phased out.²³

Schools, libraries and advocacy groups have pleaded for a reversal of the voice phasedown, in particular due to the impacts to public safety.²⁴ Cellphones for teachers, staff, and

²¹ *Id.* at 12.

²² Public Notice, 32 FCC Rcd at 5029.

²³ *Id.*

²⁴ *See, e.g.*, Comments of Funds for Learning, LLC on the Petitions for Reconsideration, WC Docket No. 13-184 (filed April 29, 2015).

