

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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

COMMENTS OF VERIZON¹

Verizon supports modernizing the E-rate program to meet the forward-looking technology needs of schools and libraries.² The Commission’s latest Public Notice seeks more focused comment on certain issues initially raised in the *E-rate Modernization NPRM*.³ In its comments on the *NPRM*, Verizon advocated that the Commission adopt new broadband-focused bandwidth targets for the E-rate program, collect additional data to measure progress toward those targets and help determine strategies for meeting them, distribute support more efficiently within the existing E-rate fund, and streamline program rules to ease the burdens on applicants and service providers. Those steps should continue to be the focus of this proceeding and are consistent with the Commission’s direction in the Public Notice.

¹ In addition to Verizon Wireless, the Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc. (collectively, “Verizon”).

² See The White House, Office of the Press Secretary, *ConnectED: President Obama’s Plan for Connecting All Schools to the Digital Age*, http://www.whitehouse.gov/sites/default/files/docs/connected_fact_sheet.pdf (June 6, 2013).

³ See Public Notice, *Wireline Competition Bureau Seeks Focused Comment on E-rate Modernization*, WC Docket 13-184, DA 14-308 (Mar. 6, 2014) (“Public Notice”) (citing *Modernizing the E-rate Program for Schools and Libraries*, Notice of Proposed Rulemaking, 28 FCC Rcd 11304 (2013) (“*E-rate Modernization NPRM*” or “*NPRM*”).

The Public Notice reports that “an initial review by Commission staff has found that the Commission can free up an additional \$2 billion over the next two years to help support broadband networks in our nation’s schools and libraries.”⁴ As set forth below, the additional \$2 billion that the Commission staff has identified presents the Commission with a significant opportunity to meet schools and libraries’ broadband needs. The Commission could, in particular, dedicate a portion of the additional \$2 billion identified by the Commission staff to the support of Wi-Fi and LAN connections within schools.

The Commission should adopt a sensible approach to distributing internal connections support and enact certain proposals that would streamline administration of the E-rate program. Given that the record shows that the existing priority one system is working well, the Commission should be cautious about establishing a new initiative, within the existing priority one system, to support the deployment of high-capacity broadband connections to schools and libraries. Should the Commission elect to phase out support for voice services, it should do so on a gradual basis, while caring for the schools with the greatest need for continued voice support and addressing the associated implementation issues. The Commission should refrain from adopting highly granular pricing disclosure proposals that would do nothing to encourage cost-effective purchasing and would only impose additional burdens on program participants.

I. Broadband within Schools and Libraries

As part of shifting the E-rate program’s focus toward high-capacity broadband, the Bureau seeks comment on whether the Commission should (1) no longer support legacy internal connections services that are currently eligible for priority two funding and (2) allocate annually

⁴ Public Notice, ¶ 7.

a set amount of E-rate funds to provide schools and libraries with funding for LANs and Wi-Fi networks. The Bureau also seeks comment on ways to provide more widespread access to funding for internal connections.

Under the existing E-rate program, the support amount available for internal connections has been unpredictable, varying widely from year to year. In most years, only the most economically disadvantaged (“90 percent”) schools have received internal connections support. Any revised methodology should be more predictable and distribute support more broadly than the current approach.

It would be reasonable for the Commission to adopt the Public Notice’s suggestion that the E-rate program “allocat[e] annually a set amount of E-rate funds to provide schools and libraries with funding for LANs and Wi-Fi networks.”⁵ Allocating a set amount of funding for internal connections before the funding year begins would make the E-rate program more predictable for applicants. As a first step, the Commission could adopt the Public Notice’s suggestion that the Commission use part of the available \$2 billion in additional support identified by Commission staff to “front-load” support for internal connections support in the 2015 and 2016 funding years.⁶ The Commission need not determine the amount of any set-aside for the 2017 and subsequent funding years at this time. Rather, the Commission should put in place a mechanism to collect data on schools and libraries’ progress towards the Commission’s internal connections goals. Then, before the application window for the 2017 funding year

⁵ *Id.* ¶ 10.

⁶ *See id.* ¶ 18.

opens, the Commission should determine the amount of any set-aside based on an evaluation of schools' progress towards internal connections goals and the available funds.

In selecting a methodology for prioritizing applications for internal connections support, the Commission should seek to expand access to internal connections support beyond the “90 percent” schools that historically have received most of the internal connections support. But the E-rate program need not provide internal connections support for *all* schools. There is, in particular, no evidence that universal service support is necessary to ensure that Wi-Fi and LAN services are affordable for wealthier schools whose percentage of students receiving free and reduced school lunch is below the national average. In light of the fact that many schools have been able to afford Wi-Fi coverage throughout their classrooms even without E-rate support, any internal connections funding should be targeted to where it is needed most. If, for example, the Commission adopts the “annual allocation” methodology described in the Public Notice,⁷ it should provide such allocations only to economically-disadvantaged schools whose percentage of students receiving free and reduced lunch exceeds a threshold, such as the national average.

The Commission should define the eligible Wi-Fi and LAN services flexibly. Eligible internal connections should include any equipment, supporting software or services essential to getting high-capacity broadband to the computer, tablet or other learning device in schools and libraries.⁸ The essential equipment and services may include “internal wiring, switches and routers, wireless access points, and the software supporting those components,” as the Public

⁷ *See id.* ¶ 20.

⁸ *See id.* ¶ 11.

Notice suggests,⁹ but it also may include other elements or services. In order to allow for the evolution of technology and permit schools to select the most cost-effective option, the Commission should not artificially limit the technology, protocols or equipment that can be used to provide connectivity to learning devices.

Similarly, schools should have the flexibility to elect *how* to obtain connectivity to learning devices. The record shows that some schools build and operate their own Wi-Fi networks. Other schools choose a “managed Wi-Fi” service in which a third party engineers, installs and manages wireless connectivity. Both options are viable and schools should be permitted to select either – and to receive a multiyear commitment of support if they elect a managed Wi-Fi option.

II. Funding Broadband Deployment Construction Costs

The Public Notice asks “whether the Commission should undertake a limited initiative, within the existing priority one system, to incent the deployment of high-capacity broadband connections to schools and libraries.”¹⁰ This proposal is premised on the assumption that “the costs of one-time construction projects, even though already supported by the E-rate program, can be cost-prohibitive.”¹¹

The Commission should be cautious about such an approach. The record shows that the existing priority one system is working well and that high-capacity services are already affordable for most schools, even the small number of schools that do not already have fiber

⁹ *Id.*

¹⁰ *Id.* ¶ 26.

¹¹ *Id.*

connections. Any cases in which schools are unable to afford high-capacity services because of the “costs of one-time construction projects” are few in number and limited to unique circumstances.

The record is clear that a majority of schools is already connected to fiber and has either met the President’s bandwidth goals already – years ahead of schedule – or is well on its way. As Verizon has shown, thousands of schools in Verizon’s wireline footprint are connected to Verizon fiber, and many more schools are connected to other providers’ networks or to county-, city-, or district-operated fiber networks.¹² The record also shows that, in many states, virtually all schools already have access to fiber. For example, in Florida, 2,634 of the 2,993 schools have fiber.¹³ Similarly, in North Carolina, 94% of schools have access to fiber.¹⁴ An estimated 99.6% of Nebraska’s 250 public school districts now are connected with scalable fiber circuits.¹⁵ And “West Virginia has attained 100% access to fiber to *all* schools.”¹⁶

The fact that so many schools already have fiber connectivity shows that fiber is broadly affordable for most schools under the existing priority one system. The record shows, for example, that fiber connectivity is affordable for most rural schools under the existing priority one system: according to NTCA, 75% of the schools identified by NTCA members as located

¹² See Letter from Alan Buzacott, Verizon, to Marlene Dortch, FCC, WC Docket No. 13-184 (Dec. 11, 2013).

¹³ See Letter from Telecommunications Access Policy Division, FCC to Marlene Dortch, FCC, *re* Florida Department of Management Services Division of Telecommunications *ex parte* communication, WC Docket No. 13-184 (Jan. 23, 2014).

¹⁴ See Letter from Telecommunications Access Policy Division, FCC to Marlene Dortch, FCC, *re* North Carolina North Carolina Research and Education Network, MCNC *ex parte* communication, WC Docket No. 13-184 (Feb. 3, 2014).

¹⁵ Nebraska Office of the CIO Comments, WC Docket No. 13-184, at 3 (Sept. 16, 2013).

¹⁶ West Virginia Department of Education Comments, at 7 (emphasis added) and 10 (Sept. 16, 2013).

within their (rural) serving areas are already connected by Fiber-to-the-Premises, with another 11% are connected by Fiber-to-the-Node.¹⁷ Similarly, even the most economically-disadvantaged schools can afford fiber connectivity under the existing priority one system. For example, Verizon serves many schools in the 80 or 90 percent discount bands with fiber-based Ethernet services. Recently-filed Form 471 applications for the 2014-2015 school year show that school districts with some of the highest levels of free and reduced lunch eligibility are able to afford gigabit services under the existing priority one system.

There is no evidence that the small number of schools that still lack fiber connectivity are unable to afford such connectivity under the existing priority one system. There are many reasons why a school may currently lack fiber connectivity that are unrelated to cost. In particular, some schools are simply at an earlier stage in their integration of new technologies into the learning environment. Such schools may be able to afford fiber and plan to upgrade to fiber in the future, but have determined that their current capacity needs can be met with copper, cable, or fixed-wireless technologies.

As Verizon explained in its initial comments, the most important step that the Commission should take in this proceeding is to gather better data about schools' connectivity. The Commission should, for example, require all E-rate applicants to report the bandwidth for each school on an ongoing basis. Once that tracking mechanism is in place, the Commission can evaluate whether to allocate funds for the provision of supplemental deployment support.

¹⁷ See Letter from Rural Representatives to Marlene Dortch, FCC, WC Docket No. 13-184, at 2 (Feb. 10, 2014).

III. Cost-Effective Purchasing

The Public Notice asks whether there are additional steps that the Commission can take to ensure efficient use of E-rate funds spent on broadband projects, including use of consortium purchasing and bulk buying (discussed below) and additional data collection and transparency. The Public Notice also asks “whether price transparency for E-rate supported services will help drive down those prices.”¹⁸

One important step that the Commission could take to encourage cost-effective purchasing is to revisit the discount matrix. As Verizon discussed in its initial comments, the Commission established the discount matrix in 1997 without explaining the rationale for the discount levels or the breakpoints between levels.¹⁹ The *NPRM* noted that parties have expressed concern that higher discount percentages encourage inefficient spending.²⁰

Consortia can also be an effective way to encourage cost-effective purchasing. Not only do consortia permit members to benefit from volume discounts, but consortia permit individual schools and libraries to take advantage of the expertise of others in the group and to spread the costs of network planning and operations expertise across multiple schools.²¹ For example, a statewide consortium in North Carolina offered centralized planning and navigation of the E-rate program, which gave schools “access to networking assessments and engineers to assist with

¹⁸ Public Notice ¶ 37.

¹⁹ Verizon Comments, at 15 (Sept. 16, 2013).

²⁰ See *NPRM* ¶¶ 118-122.

²¹ See State Consortia Group Comments, at 4-5 (Sept. 16, 2013).

their planning and architecture”²² – “engineering expertise that is often not found in schools.”²³ Indeed, “[m]uch of the value of a consortium... comes from the skill of the local lead in developing a valuable contract for potential users,” which schools can tailor to their own needs.²⁴ One step that the Commission could take would be to require applicants to demonstrate that they evaluated available state contracts or master agreements when selecting a vendor.

There is widespread agreement that publishing granular information about the prices that every E-rate applicant pays for services or the bids they receive for those services would not further the goal of cost-effective purchasing. As commenters note, those proposals are unnecessary because the Commission’s competitive bidding requirements and lowest corresponding price rule “already ensure that schools and libraries receive the lowest price that a service provider charges to customers that are similarly-situated to a particular school or library for similar services.”²⁵ And additional disclosure and transparency proposals would provide little benefit. In some cases, actual purchase prices already are disclosed.²⁶ But, because “most service offerings are individually tailored to an applicant’s particular needs, ... [pricing] comparisons are seldom apples-to-apples.”²⁷ Accordingly, even state education agencies

²² Education Coalition Comments, at 21 (Sept. 16, 2013).

²³ Beverly Eaves Perdue, Digital Learning Institute Comments, at 6 (Sept. 16, 2013).

²⁴ Education Networks of America Comments, at 50 (Sept. 16, 2014) (“ENA Comments”).

²⁵ AT&T Comments, at 13 (Sept. 16, 2013) (“AT&T Comments”).

²⁶ *See id.* at 12; *see also* CenturyLink Comments at 18 (“CenturyLink Comments”) and State E-rate Coordinators’ Alliance Comments at 42 (“SECA Comments”) (Sept. 16, 2013).

²⁷ CenturyLink Comments at 18-19; *see also* AT&T Comments at 12-13 & Sprint Comments, at 15-16 (Sept. 16, 2013) (“Sprint Comments”).

“question[] to what end this [proposed] increased transparency will result.”²⁸ At best, the limited benefits of these proposals are outweighed by the burdens they would impose on program participants that already face a number of administrative costs and hurdles.²⁹

IV. Streamlining the Administrative Process

The Public Notice recognizes the administrative difficulties E-rate program participants face and seeks “additional comment on how best to minimize the administrative burdens and overhead associated with applying for and receiving [E-rate] support.”³⁰ The record shows that there is broad support for a number of proposals that would streamline administration of the E-rate program, including modification of the Billed Entity Application for Reimbursement (BEAR) Form process, the Form 472 certification process and the gift rules.

Direct Reimbursement. Commenters uniformly support the Commission’s proposal to modify the BEAR Form process to remove service providers as “pass-throughs” for the reimbursement of funds and allow applicants paying the full cost of services to receive reimbursement directly from USAC. The proposed change is supported by service providers, schools and the states alike.³¹

Remove Form 472 Certifications. If the Commission retains the existing BEAR process, the record reflects widespread agreement that the Commission should adopt the proposal to ease

²⁸ Iowa Department of Education Comments, at 12 (Sept. 16, 2013).

²⁹ See SECA Comments at 42 (“[t]o implement a nationwide reporting system, however, in the absence of compelling evidence that this is a real problem is a colossal waste of resources and will unnecessarily increase program inefficiency and complexity”).

³⁰ Public Notice ¶ 38.

³¹ See, e.g., CenturyLink Comments at 26; AT&T Comments at 14; Windstream Comments, at 7-8 (Sept. 16, 2013); Sprint Comments at 12; Weslaco Independent School District Comments, at 11 (Sept. 16, 2013); State of Arkansas Comments, at 30 (Sept. 16, 2013); SECA Comments at 41-42.

the burden caused by the current BEAR Form 472 certification requirements, which currently require service providers to make a certification each time a Form 472 is submitted – potentially thousands of times a year.³² The Commission should modify the Service Provider Annual Certification Form (FCC Form 473) to incorporate Block 4 (“Service Provider Acknowledgment”) of the current Form 472, such that service providers can make one annual certification to cover all BEAR-related certification requirements for the year.

The gift rules should be clarified or modified. Numerous parties have joined Verizon in supporting clarification or modification of the E-rate gift rules.³³ As Hewlett-Packard explained, the gift rules adopted in the *Schools and Libraries Sixth Report and Order* are having a negative impact on charitable donations and pose a hurdle to marketing and research and development initiatives that are standard practice in the commercial world.³⁴ The Commission should clarify that it is not a violation of the gift rules for a service provider to undertake a short-term market or technology trial with schools or libraries that may involve free or discounted pricing. Similarly, the Commission should ensure that schools and libraries may take advantage of private philanthropy by adopting a bright line rule allowing charitable donations that are not contingent on the purchase of E-rate supported services and are limited to a reasonable maximum value.

Through these steps, the Commission can help ease the administrative burdens that exist in the E-rate program today.

³² See CenturyLink Comments at 28; ENA Comments at 90; see also *NPRM* ¶ 263.

³³ See, e.g., United States Telecom Association Comments, at 12 (Sept. 16, 2013); Walla Walla School District Comments, at 2 (Sept. 16, 2013); Hewlett-Packard Comments, at 18-19 (Sept. 16, 2013) (“HP Comments”); ENA Comments at 43.

³⁴ See HP Comments at 19.

V. Reduced Support for Voice Services

The Bureau seeks additional comment on several specific ways for the Commission to transition support away from voice services, and invites commenters to offer other suggestions for how best to redirect E-rate support from voice to broadband services.³⁵ Verizon expects that, even without any rule changes, schools will continue to shift to new alternatives (such as VoIP-based services) and that E-rate support for voice services could decline as a consequence. But, if the Commission seeks to further reduce support for voice services, the chosen methodology should: (1) phase out support over time, rather than on a flash cut basis, so as to allow schools and libraries to make the necessary adjustments and decisions to continue with their voice services; and (2) prioritize voice support for more economically-disadvantaged schools that may have a greater need for support to maintain voice service.

Verizon continues to have concerns that the phase-out of support for voice services could create implementation issues for applicants and service providers. For example, many customers today purchase bundles that combine voice and broadband – including broadband services that include a VoIP offering. For such bundles, it would be difficult for applicants and service providers alike to determine how much of the service price should be attributed to “voice” and how to bill and reimburse the “voice” component at a different E-rate discount percentage from the “broadband” component. Phasing down support for voice services will require difficult line-drawing and may increase the number of applications requiring cost allocation. This line-drawing will create uncertainty for applicants and service providers and will add further complexity to the E-rate application, invoicing and reimbursement processes. The Commission

³⁵ See Public Notice ¶ 40, *et seq.*

therefore should fully address the potential implementation issues before it begins phasing out support for voice services.

VI. Demonstration Projects

The Public Notice seeks further comment on “providing limited funding for well-defined, time-limited demonstration projects aimed at identifying and testing different approaches to meeting schools’ and libraries’ connectivity needs” and invites suggestions for such projects.³⁶

While demonstration projects can be a useful tool to explore potential new approaches under the E-rate program, the Public Notice provides little detail concerning the proposed demonstration projects. For example, the Public Notice does not explain how the proposed “structured bulk buying demonstration project” would work or explain why applicants cannot undertake such bulk buying under the existing rules.

The Commission should not conduct the proposed demonstration project to fund the hiring of “technical assistance experts to assist in network design or technical planning for certain schools or libraries” or “consultants who are experts on connectivity costs.”³⁷ Diverting federal funding to outside technical experts or consultants would be inconsistent with § 254(h)(1) (B) of the Act, which contemplates that E-rate support would be limited to telecommunications services. Moreover, while some schools could benefit from additional technical assistance, states and consortia are already providing such assistance and are better suited to providing that function.

³⁶ *Id.* ¶ 56.

³⁷ *See id.* ¶ 58.

The Commission should not undertake demonstration projects that would divert limited E-rate funds while duplicating the function of existing support mechanisms. As is discussed above, the existing priority one program for delivering connectivity to schools is working well. There is no need to divert funds to duplicative experiments such as “a pilot program to link last-mile infrastructure to BTOP funded networks” or “projects that target rural areas.”³⁸ Any concerns that broadband connectivity is not affordable in BTOP-funded areas or rural areas are likely misplaced.

To the extent that the Commission decides to authorize demonstration projects, they should test support for services not already covered by the E-rate program. The Commission could, for example, consider conducting an experiment to test support for 4G LTE mobile data to provide students with Internet access outside school. As the Commission recognized in 2010, “[a]dvances in technology have enabled students to continue to learn well after the school bell rings, including from their homes or other locations, for example, youth centers.”³⁹ Accordingly, the National Broadband Plan found that “[r]estricting student access to network services while on school grounds is becoming increasingly indefensible,” and recommended providing E-rate support for wireless Internet access service for portable learning devices that are used beyond school or library premises.⁴⁰

³⁸ Public Notice ¶ 59.

³⁹ See *Schools and Libraries Universal Service Support Mechanism; A National Broadband Plan for our Future*, Sixth Report and Order, 25 FCC Rcd 18762, ¶ 42 (2010) (“*Schools and Libraries Sixth Report and Order*”).

⁴⁰ *Connecting America: The National Broadband Plan*, <http://download.broadband.gov/plan/national-broadband-plan.pdf>, at 257 (2010).

To that end, in the *Schools and Libraries Sixth Report and Order*, the Commission created a trial program to investigate wireless off-premises connectivity services and whether they should be eligible for E-rate support.⁴¹ The Commission could now conduct a follow-on trial – updated to test support for 4G LTE service that has been deployed since 2010 – that is targeted to the most economically-disadvantaged schools with the lowest rates of home Internet access. Indeed, the comments submitted in response to the *NPRM* reveal broad support for the notion that the Commission should continue to explore support for mobile wireless services.⁴²

⁴¹ See *Schools and Libraries Sixth Report and Order*.

⁴² See, e.g., CTIA Comments, at 3-7, 8-9 (Sept. 16, 2013); Telecommunications Industry Association Comments, at 4 (Sept. 16, 2013); Sprint Comments at 6, 9-11; Qualcomm Comments, at 1-4 (Sept. 16, 2013); Prof. Soloway, University of Michigan & Prof. Norris, University of North Texas Comments, at 1 (Sept. 17, 2013).

CONCLUSION

The Commission should update and modernize the E-rate program consistent with the comments herein and with Verizon's comments in response to the *NPRM*.

Respectfully submitted,

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