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

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

# REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

**Adopted: July 11, 2014** **Released: July 23, 214**

**Comment Date: September 15, 2014**
**Reply Comment Date: September 30, 2014**

By the Commission: Chairman Wheeler and Commissioner Clyburn issuing separate statements; Commissioner Rosenworcel approving in part, concurring in part and issuing a statement; Commissioners Pai and O'Rielly dissenting and issuing separate statements.

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# I. INTRODUCTION

1. In this Report and Order we take major steps to modernize the E-rate program (more formally known as the schools and libraries universal service support mechanism). In so doing, we recognize E-rate's extraordinary success as the federal government's largest education technology program. Over the last 17 years, the E-rate program has helped to ensure that our nation's schools and libraries are connected to the digital world. At the same time, we acknowledge and embrace our responsibility to make sure the program evolves as the needs of schools and libraries evolve. In particular, the E-rate program must evolve to focus on providing support for the high-speed broadband that schools need to take advantage of bandwidth-intensive digital learning technologies and that libraries need to provide their patrons with high-speed access to the Internet on mobile devices as well as desktops. Access to high-speed broadband is crucial to improving educational experiences and expanding opportunities for all of our nation's students, teachers, parents and communities. Building on the comments we received in response to the *E-rate Modernization NPRM*,[1] and the *E-rate Modernization Public Notice*,[2] as well as recommendations from the Government Accountability Office (GAO),[3] the program improvements we adopt as part of this Report and Order begin the process of reorienting the E-rate program to focus on high-speed broadband for our nation's schools and libraries.[4]

2. The record clearly demonstrates the power of high-speed broadband connectivity to transform learning. High-speed broadband, to and within schools, connects students to cutting-edge learning tools in the areas of science, technology, engineering and math (STEM) education, necessary for

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[1] *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Notice of Proposed Rulemaking, 28 FCC Rcd 11304 (2013) (*E-rate Modernization NPRM*).

[2] *Wireline Bureau Seeks Further Focused Comment on Modernizing the E-rate Program*, WC Docket No. 13-184, 29 FCC Rcd 2174 (2014) (*E-rate Modernization Public Notice*).

[3] *See* U.S. Gov't Accountability Office, GAO-09-253, Telecommunications: Long-term Strategic Vision Would Help Ensure Targeting of E-rate Funds to Highest-Priority Uses (2009) (*2009 GAO E-rate Report*).

[4] See Appendices D and E for lists of comments and reply comments from the *E-rate Modernization NPRM* and *E-rate Modernization Public Notice* cited in this Report and Order.

preparing them to compete in the global economy.[5] High-speed broadband also creates opportunities for customized learning, by giving our students and their teachers access to interactive content, and to assessments and analytics that provide students, their teachers, and their parents real-time information about student performance while allowing for seamless engagement between home and school.[6] Finally, high-speed broadband expands the reach of our schools and creates opportunities for collaborative distance learning, providing all students access to expert instruction, no matter how small the school they attend or how far they live from experts in their field of study.[7]

3. High-speed broadband is also a critical component of 21st Century libraries. In many communities, libraries are the only source of free, publicly available Internet access.[8] As a result, high-speed broadband at libraries provides library patrons, many of whom have no other Internet access, the ability to participate in the digital world. Broadband services at libraries are crucial for enabling and fostering life-long learning, and they enable students at all stages of their education to perform research and complete their homework. Broadband at libraries is also crucial for students studying for and taking their General Educational Development (GED) tests and allows students to take and study for college and graduate-level courses.[9] Broadband at libraries enables patrons to seek and apply for jobs; learn new skills; interact with federal, state, local, and Tribal government agencies; search for health-care and other crucial information; make well-informed purchasing decisions; and stay in touch with friends and family.[10]

4. In adopting this Report and Order, we recognize the critical role the E-rate program plays in the lives of our students and communities and the importance of ensuring that the program supports sufficient, equitable, and predictable support for high-speed connectivity to and within schools and libraries. It is a crucial part of the Commission's broader mandate to further broadband deployment and adoption across our nation. We therefore adopt a number of the proposals made in the *E-rate Modernization NPRM* and begin the process of re-focusing the E-rate program on providing the necessary support to ensure our nation's schools and libraries have affordable access to high-speed broadband.

5. To maximize the benefits of the E-rate program to our nation's schools and libraries, we adopt the proposal made in the *E-rate Modernization NPRM* to establish clear goals and measures for the program. The three goals we adopt for the E-rate program are: (1) ensuring affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries; (2) maximizing the cost-effectiveness of spending for E-rate supported purchases; and (3) making the E-rate application process and other E-rate processes fast, simple and efficient. We also adopt approaches for measuring our success towards meeting those goals.

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[5] *See, e.g.*, SDDOE PN Comments (Digital Dakota Summary Attachment); SIIA NPRM Comments at 2; GCI NPRM Comments at 8-11; TIA NPRM Comments at 3.

[6] *See, e.g.*, Foundation for Excellence in Education, Digital Learning Now! at 11-12 (rel. Dec 1, 2010), http://www.edweek.org/media/12-1-10_digital_learning_now_report.pdf; EdCo NPRM Comments at 3; Butte County NPRM Comments at 2.

[7] *See, e.g.*, ACT NPRM Comments at 1-2; Affiniti PN Comments at 7-8.

[8] *See, e.g.*, Letter from Marijke Visser, Assistant Director, Office of Information Technology Policy, American Library Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed Feb 7, 2014) (in 62 percent of communities, the public library is the only source of free Internet access in their communities); ULC Reply Comments at 6 (more than 60 percent of libraries are the only source of free Internet access in their communities).

[9] *See, e.g.*, ALA NPRM Comments at 6-10; ULC Reply Comments at 8-10; GCI NPRM Comments at 8-11; Alliance PN Comments at 6.

[10] *See, e.g.*, ALA NPRM Comments at 6-10; ALA Summer 2012 Report at 41;ULC Reply Comments at 8-11.

6. In addition, we adopt the following updates to the E-rate program aimed at furthering each of those goals:

- To ensure affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries, we:
    - set an annual funding target of $1 billion for funding for internal connections needed to support high-speed broadband within schools and libraries;
    - test a more equitable approach to funding internal connections for applicants who seek support in funding years 2015 and 2016; and
    - reorient the E-rate program to focus on supporting high-speed broadband by phasing down support for voice services and eliminating support for other legacy services.

- To maximize the cost-effectiveness of spending for E-rate supported purchases, we:
    - adopt transparency measures to encourage sharing of cost and connectivity data;
    - encourage consortia purchasing; and
    - emphasize that providers must offer the lowest corresponding price.

- To make the E-rate application process and other E-rate processes fast, simple and efficient, we:
    - streamline the application process by:
        - simplifying the application process for multi-year contracts;
        - exempting low-cost, high-speed business-class broadband Internet access services from the competitive bidding requirements;
        - easing the signed contract requirement;
        - removing the technology plan requirement;
        - requiring electronic filings; and
        - enabling direct connections between schools and libraries.
    - simplify discount rate calculations by:
        - requiring a district-wide discount rate;
        - modifying the definition of urban and rural;
        - addressing changes to the national school lunch program (NSLP); and
        - modifying the requirements for applicants using surveys.
    - simplify the invoicing and disbursement process by:
        - allowing direct invoicing by schools and libraries; and
        - adopting an invoicing deadline.
    - create a Tribal consultation, training and outreach program.
    - require the filing of all universal service appeals initially with USAC.
    - direct USAC to adopt additional measures to improve the administration of the program by:
        - speeding review of applications, commitment decisions and disbursements;
        - modernizing USAC's information technology systems;
        - adopting open data policies;
        - improving communications with E-rate applicants and providers.
    - protect against waste, fraud, and abuse by:
        - extending the document retention deadline; and

- ensuring auditors and investigators access to an applicant's premises upon request.

7. The most fundamental step we take today is to overhaul the support system for internal connections, including the deployment of high-speed Wi-Fi in classrooms and libraries nationwide. When the E-rate program was created, the idea of wired connections to classrooms was revolutionary. Today, students and teachers can and do take their devices with them wherever they go, which means they need to have Internet connectivity throughout their schools. Likewise, in 1997, desktop computers offered state of the art connectivity in libraries. Now, library patrons bring their own devices and use those that belong to their libraries. By modernizing the E-rate program to expand schools and libraries access to more predictable E-rate funding that is sufficient to meet their needs for Wi-Fi connectivity, and other internal broadband connections.

8. Of course Wi-Fi in classrooms and libraries requires broadband connectivity to schools and libraries. We therefore also take steps in this Report and Order to ensure that all eligible schools and libraries will continue to be able to receive E-rate support to purchase broadband services to their buildings.

9. At the same time, we are mindful of the importance of continuing to improve the E-rate program in order to achieve the goals we adopt herein. In order to ensure the E-rate program evolves to meet the connectivity needs of our nation's schools and libraries, we leave the record open in this proceeding to allow us to address in the future those issues raised in the *E-rate Modernization NPRM* that we do not address today. We also issue a Further Notice of Proposed Rulemaking (FNPRM) to seek comment on some additional issues.

## II. BACKGROUND

10. The E-rate program was authorized by Congress as part of the Telecommunications Act of 1996 (the Telecommunications Act), and created by the Commission in 1997 to, among other things, enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary schools and libraries.[11] Since its inception, the E-rate program has provided support for connectivity to schools and libraries and connectivity within schools and libraries, and it has been instrumental in providing students and library patrons access to essential communication services. When the Telecommunications Act was passed, only 14 percent of classrooms had access to the Internet, and most schools with Internet access (74 percent) used dial-up Internet access.[12] By 2005, nearly all schools had access to the Internet, and 94 percent of all instructional classrooms had Internet access.[13] Similarly, by 2006, nearly all public libraries were connected to the Internet, and 98 percent of them offered public Internet access.[14]

11. There are currently five categories of services for which E-rate funding is available to eligible schools, libraries and consortia: telecommunications, telecommunications services, Internet

[11] *See* 47 U.S.C. § 254(h)(2)(A).

[12] *See* U.S. Department of Education, National Center for Education Statistics, Internet Access in U.S. Public Schools and Classrooms: 1994-2001 (2002), http://www.immagic.com/eLibrary/ARCHIVES/GENERAL/US_ED/NCES2018.pdf; U.S. Department of Education, Institute of Education Sciences, Internet Access in U.S. Public Schools and Classrooms: 1994-2005, at 4-5, 16 (2006), http://nces.ed.gov/pubs2007/2007020.pdf (NCES 2006 Internet Access in U.S. Schools Report).

[13] *See* NCES 2006 Internet Access in U.S. Schools Report at 4-5.

[14] *See* Information Use Management and Policy Institute, College of Information, Florida State University, Public Libraries and the Internet 2006: Study Results and Findings, at 7 (2006), http://www.ii.fsu.edu/Solutions/Public-Libraries-The-Internet/Reports.

access, internal connections, and basic maintenance of internal connections.[15] Within those five broad categories, the Commission has specified services and products including, but not limited to, voice services, Internet access services, and digital transmission services, that are eligible for E-rate support. The Commission publishes an eligible services list (ESL) each funding year for applicants to use as a tool in determining what services and products are eligible for E-rate support.

12. Eligible schools, libraries and consortia of schools and libraries apply for E-rate support every funding year. Each funding year runs from July 1 through June 30. Funding year 2015, for example, will run from July 1, 2015 through June 30, 2016. The E-rate program is administered by the Universal Service Administrative Company (USAC). Traditionally, E-rate applicants are required to seek competitive bids for the services they seek to purchase using E-rate funds.[16] Applicants must submit an FCC Form 470 for posting on USAC's website, which requests bids for E-rate eligible services.[17] The applicant must describe the requested services with sufficient specificity to enable potential service providers to submit bids for such services.[18] Applicants must then carefully consider all submitted bids, and the price of eligible products and services must be the primary factor in selecting the winning bid.[19] After entering into a contract for E-rate eligible services, applicants request support by submitting an FCC Form 471 application to USAC.[20]

13. Under the Commission's current rules, eligible schools and libraries may receive discounts ranging from 20 percent to 90 percent of the pre-discount price of eligible services, based on indicators of need.[21] Specifically, as set forth in Figure 1, and in our rules, schools and libraries in areas with higher percentages of students eligible for free or reduced price lunch through the NSLP or an alternative mechanism qualify for higher discounts for eligible services than applicants with low levels of eligibility for such programs.[22] For example, the most disadvantaged schools, where at least 75 percent of students are eligible for free or reduced price school lunch, receive a 90 percent discount on eligible services, and thus pay only 10 percent of the cost of those services. Libraries receive funding at the discount level of the school district in which they are located. Schools and libraries located in rural areas also may receive an additional 5 to 10 percent discount compared to urban areas.[23]

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[15] *See generally* 47 C.F.R. §§ 54.501 *et seq*.

[16] 47 C.F.R. § 54.503.

[17] *See id*; s*ee also* Schools and Libraries Universal Service, Description of Services Requested and Certification Form, OMB 3060-0806 (December 2013) (FCC Form 470).

[18] 47 C.F.R. § 54.503.

[19] *See* 47 C.F.R. §§ 54.503, 54.511; *see also Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9029, para. 481 (*Universal Service First Report and Order*) (1997); *Request for Review by Ysleta Independent School District of the Decision of the Universal Service Administrator*, CC Docket Nos. 96-45, 97-21, Order, 18 FCC Rcd 26407, 26429, para. 50 (2003).

[20] *See* 47 C.F.R. § 54.504.

[21] 47 C.F.R. § 54.505(a)-(b); *see also infra* Figure 1 (School and Library Discount Matrix).

[22] 47 C.F.R. § 54.505(b).

[23] 47 C.F.R. § 54.505(b)(3).

**Figure 1**

**School and Library Discount Matrix**

| Percentage of Students Eligible for Lunch Program | Urban Discount | Rural Discount |
|---|---|---|
| < 1 % | 20 % | 25 % |
| 1-19 % | 40 % | 50 % |
| 20-34 % | 50 % | 60 % |
| 35-49 % | 60 % | 70 % |
| 50-74 % | 80 % | 80 % |
| 75-100 % | 90 % | 90 % |

14. In 1997, the Commission established an annual funding cap for the E-rate program of $2.25 billion at the recommendation of the Federal-State Joint Board on Universal Service.[24] When the Commission adopted this cap, it recognized that $2.25 billion was a projection of the needs of schools and libraries for eligible services, and that it might be necessary to adjust the cap to address changes in the program, technologies or school and library needs.[25] Over the years, the Commission has made some minor adjustments to the cap. Starting in 2003, the Commission directed USAC to identify unused funds from previous years and to carry forward those funds in order to issue funding commitment decision letters (FCDLs) in excess of the annual cap.[26] Most recently, in the *Schools and Libraries Sixth Report and Order*, the Commission directed that the cap be indexed to inflation beginning in 2010.[27] For funding year 2014, the E-rate fund is capped at just over $2.4 billion.[28]

15. Currently, the Commission's rules provide that requests for all telecommunications, telecommunications services and Internet connections (commonly referred to as priority one services) receive first priority for funding.[29] The remaining funds are allocated to requests for support for internal connections and basic maintenance of internal connections (priority two services), beginning with the most economically disadvantaged schools and libraries, as determined by the schools and libraries discount matrix.[30] Funding for all priority one services is committed first and remaining funding is committed to priority two requests, beginning with schools and libraries eligible for a 90 percent discount and descending a single discount percentage, e.g., 89 percent, 88 percent, and so on until the cap is reached.

[24] *Universal Service First Report and Order*, 12 FCC Rcd at 9054, para. 529.

[25] *Id.* at 9054, para. 530.

[26] *See Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Order, 25 FCC Rcd 18762, 18780-83, paras. 35-40 (2010) (*Schools and Libraries Sixth Report and Order*).

[27] *Id*.

[28] The cap for funding year 2014 is $2,413,817,693. *See Wireline Competition Bureau Announces E-rate Inflation-Based Cap for Funding Year 2014*, CC Docket No. 02-6, Public Notice, 29 FCC Rcd 3222 (Wireline Comp. Bur. 2014).

[29] 47 C.F.R. § 54.507(g)(1)(i).

[30] 47 C.F.R. § 54.507(g)(1)(ii); 47 C.F.R. § 54.505(c).

16. The total demand, including priority two requests, has exceeded the E-rate program's available funding almost every year since the program's inception.[31] In the early years, the E-rate program was able to fund a substantial percentage of the priority two requests that it received, but more recently, the vast majority of requests for priority two services have gone unfunded. Even with the Commission allowing USAC to carry forward unused funds from previous years, since funding year 2000, with one exception, priority two funding has been available only for recipients where at least 50 percent of the students are eligible for free or reduced price school lunch.[32] In funding year 2012, the schools receiving the highest ten percent of funding commitments on a per-student basis obtained, on average, a commitment of more than $1,750 per student for internal connections funding.[33] Moreover, because funding for priority two services has been so variable, schools and libraries do not know from one funding year to the next whether they will be eligible for priority two funds.

17. Unlike for priority two requests, E-rate funding has always been sufficient to meet priority one requests at every discount level. However, for each of the last three funding years, estimated demand for priority one funding alone exceeded the funding cap.[34] Most recently, on May 2, 2014, the Wireline Competition Bureau (Bureau) announced that, based on USAC's projections of demand and administrative expenses, $200 million in unused funds from previous funding years would be carried forward to ensure sufficient funds are available to provide support for all eligible priority one funding requests received from schools and libraries in funding year 2014.[35] While carry-forward funds may serve as a stopgap measure, the trend in priority one demand indicates that, absent reforms, the ability to fund priority one requests at all discount levels will be threatened, and the Commission's ability to provide predictable or equitable funding for priority two requests is in doubt.

[31] *See* USAC, Schools and Libraries Program, USAC Automated Search of Commitments, http://www.usac.org/sl/tools/commitments-search/Default.aspx (last visited June 18, 2014).

[32] *See, e.g.*, USAC, Schools and Libraries Program, Schools and Libraries News Brief (dated Apr. 11, 2008), http://www.usac.org/sl/tools/news-briefs/preview.aspx?id=155 (last visited June 18, 2014) (setting the funding year 2007 denial threshold); USAC, Schools and Libraries Program, Schools and Libraries News Brief (dated July 6, 2007), http://www.usac.org/sl/tools/news-briefs/preview.aspx?id=98 (last visited June 18, 2014) (setting the funding year 2006 priority two threshold). In funding year 2003, priority two funding was available at the 70 percent discount level due to a $420 million rollover of unused E-rate funds. For funding year 2010, the Bureau directed USAC to make funding available at all priority two discount levels. It made this determination in light of USAC's announcement that there was additional funding available in the schools and libraries reserve accounts to fund all the applicants. *See Funds For Learning, LLC Petition to Reject the Administrator's Discount Threshold Recommendation for Funding Year 2010*, *Schools and Libraries Universal Service Support Program*, CC Docket No. 02-6, Order, 26 FCC Rcd 11145, 11148-49, para. 9 (Wireline Comp. Bur. 2011); *see also* USAC Fund Size Projections for 4Q 2011 at 41 (Aug. 2, 2011), http://www.usac.org/about/tools/fcc/filings/2011/Q4/4Q2011%20Quarterly%20Demand%20Filing.pdf (USAC Fourth Quarter 2011 Fund Size Projection).

[33] Based on an examination of FCC Form 471 Block 4 and Data Retrieval Tool information. *See* USAC, Schools and Libraries Program, Funding Request Data Retrieval Tool, http://www.slforms.universalservice.org/DRT/Default.aspx (last visited June 18, 2014); USAC, 471 Application Display, http://www.slforms.universalservice.org/Form471Expert/DisplayExt471_StartSearch.aspx (last visited June 18, 2014).

[34] *See* Funds for Learning, USF for Schools and Libraries, Funding Year 2013 and Beyond, Growing to Meet the Needs of Students and Library Patrons at 12 (Feb. 2013), http://www.fundsforlearning.com/FFLProposal.php (FFL Feb. 2013 Rep.); E-rate Central, News for the Week, Dec. 17, 2012, http://www.e-ratecentral.com/archive/News/News2012/weekly_news_2012_1217.asp#b2 (E-Rate Central Newsletter, Dec. 17, 2012).

[35] *See Wireline Competitive Bureau Announces Carry-Forward of Unused E-rate Funds for Funding Year 2014*, CC Docket No. 02-6, Public Notice, 29 FCC Rcd 4967 (Wireline Comp. Bur. 2014).

18. Over the last sixteen years, the Commission has taken steps to update the program. Most recently, in 2010, the Commission updated the E-rate program by: (1) providing greater flexibility to schools and libraries in their selection of the most cost-effective broadband services; (2) streamlining the E-rate application process; and (3) improving safeguards against waste, fraud, and abuse.[36] At that time, the Commission recognized that modernizing the program would be a multi-stage process, and welcomed ongoing feedback from stakeholders on how to continue to improve the program.[37]

19. In June 2013, President Obama announced the ConnectED initiative aimed at jump starting learning technology across our nation's elementary and secondary schools.[38] To foster a robust ecosystem for digital learning, President Obama called on the Commission to modernize the E-rate program and to connect schools and libraries serving 99 percent of our students to next-generation high-speed broadband (with speeds of no less than 100 Mbps and a target speed of 1 Gbps) and to provide high-speed wireless connectivity within those schools and libraries within five years.[39] President Obama also called on the Department of Education to work with states and local governments on teacher training, and he called on the private sector to assist through public-private partnerships.[40] Teachers, local school officials, state education leaders, digital learning experts, and businesses from across the country endorsed President Obama's vision.[41] To date, private sector companies have committed to providing more than $2 billion in goods and services to schools and libraries in support of the President's ConnectEd initiative.[42]

20. In July 2013, the Commission released the *E-rate Modernization NPRM*, proposing to adopt three goals for the program—(1) ensuring that schools and libraries have affordable access to 21st Century broadband that supports digital learning, (2) maximizing the cost-effectiveness of E-rate funds, and (3) streamlining the administration of the program—and seeking comment on a variety of options for reaching those goals.[43] In March 2014, the Bureau issued the *E-rate Modernization Public Notice* seeking further focused comment on several issues raised in the *E-rate Modernization NPRM*, including how best to focus E-rate funds on high-speed broadband, especially high-speed Wi-Fi and internal connections; and whether and how the Commission should begin to phase down or phase out support for traditional voice services in order to focus more funding on broadband.[44] In May 2014, the Commission held an E-rate Modernization Workshop that explored issues at the intersections of schools' and libraries' current and future broadband needs, best practices for meeting those needs, and the Commission's role in meeting those needs as it considers how to modernize the E-rate program.[45]

21. The Commission has received more than 3,100 comments and *ex parte* filings. Individual Commissioners and Commission staff have met with hundreds of stakeholders, and more than

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[36] *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18764-65, para. 6.

[37] *Id*. at 18765, para. 7.

[38] *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 (last visited June 18, 2014) (ConnectED Fact Sheet).

[39] *Id.*

[40] ConnectED: Education for K-12 Students, http://www.whitehouse.gov/issues/education/k-12/connected (last visited June 18, 2014).

[41] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11308 n.19.

[42] *See* ConnectEd Initiative at http://www.whitehouse.gov/issues/education/k-12/connected (last visited June 19, 2014).

[43] *E-rate Modernization NPRM*, 28 FCC Rcd 11304.

[44] *Id*. at 11331-32, para. 95.

[45] *See* Federal Communications Commission, E-rate Modernization Workshop, May 6, 2014, http://www.fcc.gov/events/e-rate-modernization-workshop.

1,000 people attended the E-rate Modernization Workshop, either in person or online. The vast majority of stakeholders support modernizing the E-rate program to focus it on ensuring schools and libraries have affordable access to high-speed broadband.

## III. PERFORMANCE GOALS AND MEASURES

22. Based on overwhelming support in the record, and consistent with the Congressional directives in sections 254(b) and (h) of the Communications Act (the Act),[46] we adopt three goals modeled on those proposed in the *E-rate Modernization NPRM*: (1) ensuring affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries; (2) maximizing the cost-effectiveness of spending for E-rate supported purchases; and (3) making the E-rate application process and other E-rate processes fast, simple, and efficient.[47] We also adopt associated performance measures and targets to determine whether we are successfully achieving these goals. Clearly articulating goals for the E-rate program, along with specific performance measures and targets, will help us focus our efforts as we modernize the E-rate program, monitor our progress over time, and adjust course as needed. In choosing these goals, performance measures, and targets, we also recognize the need to be sufficiently flexible to accommodate the evolving technological and connectivity needs of schools and libraries.

23. Establishing clear performance goals is also consistent with the Government Performance and Results Act of 1993 (GPRA), which requires federal agencies to engage in strategic planning and performance measurement.[48] In 2007, the Commission adopted measures to safeguard the universal service fund (USF or Fund) from waste, fraud, and abuse as well as measures to improve the management, administration, and oversight of the USF generally.[49] More recently, the Commission has adopted goals in the other USF programs it has modernized over the last few years.[50] In the *E-rate Modernization NPRM*, while the Commission recognized the importance of these measures, it also acknowledged the subsequent finding by the GAO that the E-rate program, specifically, lacked sufficient

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[46] *See* 47 U.S.C. §§ 254(b), 254(h)(1)(B).

[47] In the *E-rate Modernization NPRM*, the Commission proposed three similar goals for the E-rate program: (1) Ensuring schools and libraries have affordable access to 21st Century broadband that supports digital learning; (2) maximizing the cost-effectiveness of E-rate funds; and (3) streamlining the administration of the E-rate program. *See E-rate Modernization NPRM*, 28 FCC Rcd at 11311, para. 13.

[48] Government Performance and Results Act of 1993, Pub. L. No. 103-62, 107 Stat. 285 (1993). Under the GPRA, federal agencies must develop strategic plans with long-term, outcome related goals and objectives, develop annual goals linked to the long-term goals, and measure progress toward the achievement of those goals in annual performance plans and report annually on their progress in program performance reports. *See* GPRA Modernization Act of 2010, Pub. L. 111-352, 124 Stat. 3866 (2011).

[49] *See Comprehensive Review of Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195, Order, 22 FCC Rcd 16372 (2007) (*2007 USF Program Management Order*). In 2008, the Commission sought further comment, among other things, on ways to further strengthen management, administration, and oversight of the USF, how to define more clearly the short-term and long-term goals of the USF, and to identify any additional quantifiable performance measures that may be necessary or desirable. *See Comprehensive Review of Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195, Notice of Inquiry, 23 FCC Rcd 13583 (2008) (*USF Program Management Notice of Inquiry*).

[50] *See 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, 17681-17683, paras. 48-59 (2011) (*USF/ICC Transformation Order*), *aff'd sub nom. In re FCC 11-161*, ___ F.3d ___, 2014 WL 2142106 (10th Cir. May 23, 2014); *Lifeline and Link Up Reform and Modernization et al.*, WC Docket Nos. 12-23, 11-42, 03-109, CC Docket No. 96-45, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, 6671-77, paras. 27-43 (2012) (*Lifeline Reform Order*); *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, 27 FCC Rcd 16678, 16696-99, paras. 34-43 (2012) (*Healthcare Connect Fund Order*).

performance goals and measures.[51] In its 2009 report, the GAO emphasized that successful performance measures should be tied to goals, address important aspects of program performance, and provide useful information for decision making.[52] The goals, measures, and targets we adopt today respond directly to the GAO's recommendations and place the E-rate program on a clear strategic path, consistent with the GPRA.

24. Throughout this Report and Order, we use these three goals as guideposts for our decisions about how to close the gap between the broadband needs of schools and libraries and their ability to obtain those services. As part of the performance measures, we set connectivity targets by which we will evaluate progress towards meeting our goals. We also adopt reporting obligations for USAC and for E-rate program participants that will enable us to measure progress towards meeting the goals. While we identify specific reporting obligations, we delegate authority to the Bureau, working with the Office of the Managing Director (OMD), to finalize the format and timing of those reporting obligations.

25. Using the adopted goals and measures, we will, consistent with the GPRA, monitor the performance of the E-rate program over time, and regularly reassess our rules and policies to ensure that they are continuing to support our goals.[53] If we find that the E-rate program is not making progress towards meeting the performance goals, we will consider corrective actions. Likewise, to the extent that the adopted targets and performance measures do not help us assess program performance, we will revisit them.

### A. Ensuring Affordable Access to High-Speed Broadband Sufficient to Support Digital Learning in Schools and Robust Connectivity for All Libraries

#### 1. Goal

26. We adopt as our first goal ensuring affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries.[54] This goal is widely supported by commenters[55] and implements Congress's directive in section 254(h) of the Act that the Commission "enhance access to advanced telecommunications and information services" to schools and libraries "to the extent technically feasible and economically reasonable," and determine a discount level for all E-rate funded services that is "appropriate and necessary to ensure affordable access to and use of such services."[56]

27. Our record demonstrates that high-speed broadband is essential for students, teachers, and library patrons seeking to take advantage of the rapidly expanding opportunities for interactive digital

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[51] *See* 2009 GAO E-rate Report; *E-rate Modernization NPRM*, 28 FCC Rcd at 11312, para. 15.

[52] 2009 GAO E-rate Report at 44.

[53] *See* 31 U.S.C. §§ 1116, 1120-1121, *as amended by* GPRA Modernization Act of 2010, Pub. L. No. 111-352 §§ 4-5 (2010).

[54] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11313, paras. 17-19.

[55] *See, e.g.*, ALA NPRM Comments at 10; AT&T NPRM Comments at 3; Butte County NPRM Comments at 2; CALET NPRM Comments at 1; Cisco NPRM Comments at 15; EdCo NPRM Comments at 16; EdLiNC NPRM Comments at 17; KDLA NPRM Reply Comments at 2; LEAD NPRM Comments at 5-7; NASUCA NPRM Comments at 11; NCTA NPRM Comments at 3-6; NHMC NPRM Comments at 1-2, 4; NYCDOE NPRM Comments at 2; Pamela Tucker NPRM Comments at 3; SC K-12 Initiative NPRM Comments at 6; SIIA NPRM Comments at 2; Verizon NPRM Comments at 3; ARC NPRM Reply Comments at 2-3; Digital Promise NPRM Reply Comments at 5; Illinois NPRM Reply Comments at 2; New America NPRM Reply Comments at 31; Santa Fe NPRM Reply Comments at 1; TETA NPRM Reply Comments at 1.

[56] *See* 47 U.S.C. §§ 254(b)(6), (h)(2)(A), (h)(1)(B).

learning.[57] As the Commission observed in the *E-rate Modernization NPRM*, the availability of high-speed broadband in schools transforms learning opportunities and expands school boundaries by providing all students access to high-quality courses and expert instruction.[58] We also agree with commenters that high-speed broadband connections should be available to students and teachers *throughout* a school, enabling them to utilize online materials and blended learning throughout the day and as part of their curriculum.[59]

28. High-speed broadband is also critical in libraries, where it provides patrons with the ability to access the Internet, search for and apply for jobs, engage with governmental entities, learn new skills, and engage in life-long learning.[60] High-speed broadband to and within libraries is especially important in communities where many lack home access to broadband, including minority and low-income communities.[61] Libraries in these communities provide broadband access during non-school hours to students who do not have home access to broadband.[62]

29. The record demonstrates that schools and libraries, recognizing the importance of high-speed broadband to utilize the variety of Wi-Fi enabled devices for educational purposes, are racing to deploy and upgrade their networks. Specifically, schools and libraries are working to upgrade local area networks (LANs) and wireless local area networks (WLANs or Wi-Fi networks) to deliver high-speed broadband to every student and patron device.[63] School districts are increasingly implementing one-to-one student to device initiatives and bring your own device (BYOD) programs that require high-density Wi-Fi coverage in every classroom and common area. The WLAN upgrades necessary to support one-to-one digital learning may include upgraded switches, wireless routers, Cat 6 or fiber cabling, and 802.11n (or better) wireless access points (WAPs).[64] Though the increasing number of Wi-Fi-enabled devices in

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[57] *See supra* para. 21.

[58] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11306, para. 3.

[59] *See, e.g.*, ADTRAN NPRM Comments at 7-8; Amplify NPRM Comments at 3; Boston Renaissance NPRM Comments at 2; SIIA NPRM Comments at 3-4; SECA NPRM Comments at 11 (indicating that access to the school is not enough and that each classroom within a school should have access).

[60] *See, e.g.*, ALA NPRM Comments 6-10; ULC NPRM Reply Comments 5-11.

[61] *See, e.g.*, MMTC NPRM Comments at 2-4; ALA NPRM Comments at 9; ULC NPRM Comments at 2; ULC PN Reply Comments at 8.

[62] *See* ALA NPRM Reply Comments at 5; ULC PN Reply Comments at 2.

[63] *See*, *e.g.*, Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2-3 (filed Oct. 31, 2013) (Wisconsin Districts Ex Parte); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed Sept. 27, 2013) (Oregon Districts Ex Parte); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2-3 (July 30, 2013) (Mississippi Districts Ex Parte); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed June 19, 2014) (Sacramento Library Ex Parte).

[64] *See, e.g.*, Cisco NPRM Comments, Attach. 1 at 30-32 (Cisco White Paper); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed Aug. 16, 2013) (Georgia Districts Ex Parte); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2-3 (filed Nov. 19, 2013) (Virginia Districts Ex Parte).

schools provides exciting educational possibilities, 57 percent of school districts responding to a recent survey by the Consortium on School Networking do not believe that they have Wi-Fi capacity capable of handling a one-to-one deployment.[65]

30. Libraries are also seeing a rapid increase in bandwidth demand driven by Wi-Fi-enabled devices and the public's need for broadband access.[66] The percentage of libraries providing free Wi-Fi to the public grew from 37 percent in 2006 to 91 percent in 2012.[67] Several commenters note that the public library is sometimes the only place offering free Internet access to the community.[68] Many libraries report that patron-owned devices connected to their network will soon surpass library-provided devices.[69] New technologies such as digital media labs, interactive learning tools for adult education, and videoconferencing services also contribute to increasing bandwidth demand in libraries.[70]

31. Finally, it is also crucial that high-speed broadband to schools and libraries be affordable, consistent with section 254(b)(1).[71] The record makes clear that, in some areas today, schools and libraries are unable to afford high-speed broadband services or the services they can afford provide insufficient bandwidth to support digital learning or provide their patrons with robust Internet access.[72] We have collected voluminous data on the current state of connectivity to schools and libraries, and the prices schools and applicants are paying for their connectivity. The record reveals a wide variance in the speed and price of connectivity at schools and libraries nationwide.[73] Location, access to fiber connections, financial resources, access to a research and education network (REN), statewide or regional coordination, ISP competition, and a well-informed information technology (IT) staff are among the

[65] *See, e.g.*, CoSN NPRM Reply Comments at 1, 15.

[66] *See* ALA PN Comments at 18-19; ULC NPRM Reply Comments at 13.

[67] *See, e.g.*, ALA NPRM Comments at 10.

[68] *See, e.g.*, ULC PN Comments at 6-7; Chicago NPRM Comments at 1; ALA NPRM Comments at 7.

[69] *See, e.g.*, ALA PN Comments at 18.

[70] *See, e.g.*, ALA PN Comments at 9; ULC PN Comments at 10.

[71] 47 U.S.C. § 254(b)(1) ("Quality services should be available at just, reasonable, and affordable rates").

[72] *See, e.g.*, ARC NPRM Reply Comments at 3; AT&T NPRM Comments at 3; California SBA NPRM Comments at 2-3; EdLiNC NPRM Comments at 17; iFiber NPRM Comments at 2; METLA NPRM Comments at 4; MMTC NPRM Comments at 2-4; NTCA/WTA NPRM Reply Comments at 10-11.

[73] *Compare* SC K-12 Initiative NPRM Comments at 6 (99 percent of South Carolina public schools have fiber WAN connections), Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed Sept. 19, 2013) (Massachusetts Districts Ex Parte) (Burlington, MA schools are connected to a 10 Gbps municipal WAN with no recurring lease or maintenance costs); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach. at 8 (filed Oct. 31, 2013) (Rawson Ex Parte) (State Master Contract rate of $750/month for 1 Gbps WAN circuits), *and* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed March 13, 2014) (Peninsula Library Ex Parte) ($780/month for 1 Gbps WAN circuits and $3,498/month for a 10 Gbps Internet access connection), *with* Oregon Districts Ex Parte at 2 (schools in Mahleur County pay $1,000/month for a T-1 Internet access connection), *and* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach. at 3 (filed March 21, 2014) (Montana Ex Parte) (identifying 28 schools with no access to a broadband connection); *see also* Iowa DOE NPRM Comments at 3-4 (prices for 45 Mbps Internet access connections purchase through Iowa's statewide consortium range from $210/month to $3,375/month).

many factors that can affect a school's or library's ability to procure high-speed connectivity at a reasonable price.[74]

### 2. Measures

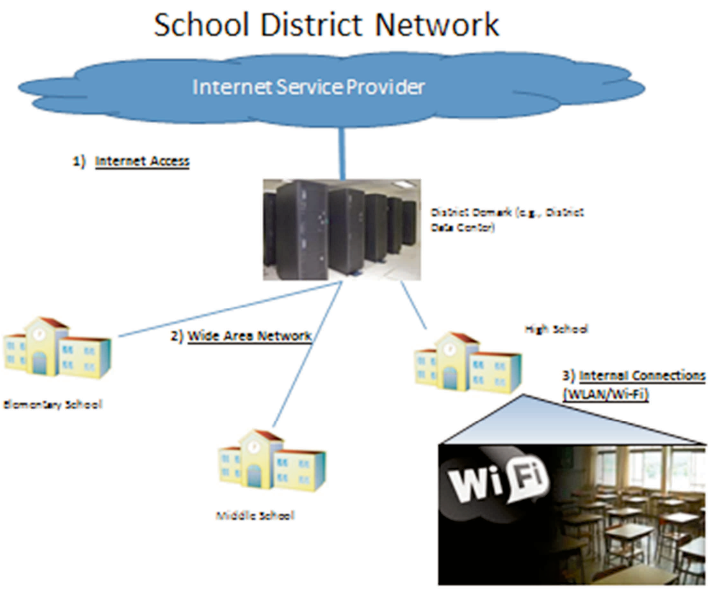
32. We will evaluate progress towards our first goal by comparing connectivity to and within schools and libraries with widely accepted connectivity targets that are based on digital learning and library needs. As illustrated in Figure 2 below, the connectivity needs of schools can be divided into three components:

- *Internet Access* – School districts and some library systems purchase Internet access for the entire district or system at a single point of aggregation. For the purposes of this measure, we refer to "Internet access" as the connection or connections that allow traffic to flow from that aggregation point to the public Internet. As part of the purchase of Internet access, the school district (or library system) may purchase dedicated connectivity (e.g., dedicated transport) from its point of aggregation to its Internet Service Provider's (ISP's) point of presence.[75] For schools and libraries that are not connected to a district Wide Area Networking (WAN), Internet access simply refers to the school's or library's direct connection to the public Internet.
- *WAN/Last-Mile* – As just described, school districts and library systems frequently connect individual schools and libraries to a central aggregation point, such as a district, county, or regional data hub, that hosts the Internet demarcation point for the entire district, county, regional, or library system. We refer to these connections as WAN or last mile connections.
- *Internal Connections* – This category encompasses the infrastructure necessary to deliver Internet access from the edge of a school or library to the actual student, faculty, or patron end-user device. Internal connections include Wi-Fi.

[74] *See, e.g.*, Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed Feb. 3, 2014) (MCNC Ex Parte) (100 percent of North Carolina public school districts and 94 percent of public schools are connected to fiber through MCNC, the statewide REN); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed Aug. 9, 2013) (Round Rock ISD Ex Parte) (district owns its 10 Gbps fiber WAN and plans to reduce Internet access costs by more than 50 percent due to increased competition and decreasing rates in the Austin, TX area) (filed Aug. 9, 2013); Wisconsin Districts Ex Parte at 2 (regional Cooperative Educational Service Agencies pool technology resources and manage WANs).

[75] *See, e.g.*, *See* Letter from Evan Marwell, CEO, EducationSuperHighway, to Marlene H. Dortch, Secretary, Federal Communications Commission, at White Paper Attachment at 35-36 (filed Apr. 10, 2014) (EdSuperHighway White Paper Ex Parte) (subdividing expenses between Internet access and data transport).

**Figure 2 – Taxonomy of Broadband Connectivity for Schools**




33. For each of these three network components, we adopt separate measures of progress, including distinct connectivity targets.

### a. Internet Access

34. *Connectivity Targets*. We adopt the State Education Technology Directors Association's (SETDA) target recommendation of Internet access for schools of at least 100 Mbps per 1,000 students and staff (users) in the short term and 1 Gbps Internet access per 1,000 users in the longer term.[76] We agree with those commenters who support both the shorter and longer-term connectivity SETDA targets as reflecting schools' bandwidth needs as they increasingly adopt digital learning strategies and one-to-one device initiatives.[77] SETDA's long-term targets are also consistent with President Obama's initiative to connect 99 percent of students to high-speed broadband within five years.[78]

35. We will measure Internet connectivity at the district level for school districts and at the school level for schools that are not members of a district (e.g., private schools). We recognize that the SETDA target for Internet access connectivity may not be appropriate for every school or school district, especially very large or very small districts or individual schools, and will take that into account when measuring success towards the targets we set today. Large school districts often keep a significant amount of traffic on their internal networks and are able to oversubscribe Internet connections, thereby

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[76] *See* State Educational Technology Director's Association (SETDA), The Broadband Imperative: Recommendation to Address K-12 Educational Infrastructure Needs, at 2 (rel. May 21, 2012), http://www.setda.org/wp-content/uploads/2013/09/The_Broadband_Imperative.pdf (last visited May 20, 2014) (SETDA Recommendation). Here and in section III.A.2.b, below, we find the connectivity targets we adopt are justified in the record as reasonable predictions of near-term and longer-term needs, subject to refinement over time as warranted.

[77] *See, e.g.*, Arkansas NPRM Comments at 7; METLA NPRM Comments at 6; NASBE NPRM Comments at 3; SHLB NPRM Comments at 2; San Jacinto NPRM Comments at 2.

[78] ConnectED Fact Sheet.

requiring less per-student Internet access bandwidth.[79] For example, the Los Angeles Unified School District's (LAUSD) network has approximately 750,000 total users and LAUSD is implementing a district-wide one-to-one initiative.[80] LAUSD anticipates that 90 Gbps Internet access connectivity, or approximately 120 Mbps per 1,000 students, will deliver sufficient bandwidth to every classroom and device with the help of bandwidth optimization measures that compress data and eliminate redundant traffic.[81] We will continue to analyze data on broadband demand.

36. This ongoing examination of our Internet connectivity targets should include regular input from schools and libraries. We therefore direct the Bureau to seek, as part of the application process, feedback from schools and libraries on the sufficiency of their Internet access bandwidth to meet their needs. The Bureau will consider all responses, in conjunction with usage and demand data, when refining the Internet connectivity targets.

37. With respect to libraries, we initially adopt as a bandwidth target the American Library Association's recommendation that all libraries that serve fewer than 50,000 people have broadband speeds of at least 100 Mbps and all libraries that serve 50,000 people or more have broadband speeds of at least 1 Gbps.[82] We agree with commenters that the size of the community served by a library must factor into the library target.[83]

38. *Affordability*. To measure affordability, we will track pricing as a function of bandwidth. We direct the Bureau, working with OMD and USAC, to regularly report normalized pricing (e.g., price per Mbps) for Internet access connectivity and to identify any outliers.

#### b. WAN

39. *Connectivity Targets.* We adopt as a target for WAN connectivity the total number of schools that have a connection capable of providing a dedicated data service scalable to the SETDA long-term WAN target of 10 Gbps per 1,000 students.[84] At this time, the vast majority of districts and libraries that operate WANs do not have demand for, and therefore do not purchase, 10 Gbps circuits. Indeed, schools and districts have varying broadband needs that will increase at different rates. For example, some elementary schools may not require the same bandwidth per student as middle or high schools.[85] Very small schools with fewer than 100 students, particularly those that are part of small districts, may

[79] Network oversubscription refers to the fact that the maximum aggregate demand for capacity at a shared link or node in the network can exceed the link or node capacity. This common network infrastructure practice is often expressed using an oversubscription ratio of allocated bandwidth per user to guaranteed bandwidth per user. *Connect America Fund et al.*, WC Docket No. 10-90 et al., Notice of Inquiry and Notice of Proposed Rulemaking, 25 FCC Rcd 6657, 6841, Appendix C (2010); *see also* Cisco Systems, Oversubscription and Density Best Practices, http://www.cisco.com/c/en/us/solutions/collateral/data-center-virtualization/storage-networking-solution/net_implementation_white_paper0900aecd800f592f.html (last visited June 26, 2014).

[80] *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed March 4, 2014) (LAUSD Ex Parte).

[81] *See id.* at 1-2.

[82] *See* ALA PN Comments at 5. ALA defines the population served by a library according to the library's legal service area as defined by the Institute of Museum & Library Services. *Id.* at 4.

[83] *See* ALA PN Comments at 5; ULC PN Comments at 8.

[84] SETDA did not recommend a short-term WAN connectivity goal. Given the time and expense required to upgrade to connectivity scalable to 10 Gbps, we decline to adopt a short-term WAN goal.

[85] *See, e.g.*, Florida DSM NPRM Comments at 4; Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed May 23, 2014) (Palestine ISD Ex Parte).

not require WAN connections scalable to 1 Gbps (equivalent to 10 Gbps per 1,000 students). However, in some instances small schools in small districts may require more bandwidth per student because they may not be able to take advantage of high oversubscription ratios or conserve bandwidth by using network optimization tools to the same extent as larger schools and larger districts.[86] Conversely, large school districts may be able to optimize their networks to deliver very high speed broadband to the classroom without having WAN connectivity of 10 Gbps per 1,000 students.[87] We therefore adopt a target that focuses on the *scalable capacity* of school district WAN connections to 10 Gbps per 1,000 students. In most cases, a 1 Gbps fiber connection can be readily scaled to 10 Gbps with upgraded networking equipment.[88]

40. The WAN connectivity target that we adopt today is the result of careful analysis of the record and our programmatic experience. Several commenters agree that the SETDA WAN targets accurately reflect the rapidly increasing broadband demand in schools.[89] Others argue that the SETDA WAN targets are too low given the increasing bandwidth demands of standardized testing, educational applications, streaming video, and the growing number of Wi-Fi-enabled devices in schools.[90] Many school districts report that they have doubled their WAN bandwidth in recent years and are planning for future increases.[91] Commenters opposed to adoption of the SETDA WAN targets express concerns about uniform targets for all schools because districts have widely varying student populations, broadband availability, and financial resources.[92] Other commenters recommend that the Commission conduct a

[86] *See, e.g.*, Arkansas NRPM Comments at 6-7; WVDE NPRM Comments at 15.

[87] *See* MCNC Ex Parte at 2 (large districts in NC have tiered WANs that provide more capacity to high schools); Virginia Districts Ex Parte at 2 (Loudon Co. WAN connections range from 10 Mbps for small elementary schools to 1 Gbps for large high schools).

[88] *See* Comcast NPRM Comments at 10; Sunesys NPRM Comments at 2, 5-6.

[89] *See, e.g.*, Clark County NPRM Comments at 3; ENA NPRM Comments at 8-9; METLA NPRM Comments at 6; Knox County NPRM Comments at 6; SC K-12 Initiative NPRM Comments at 5-6.

[90] *See, e.g.*, iFiber NPRM Comments at 2-3; Xirrus NPRM Comments at 3; PCIA NPRM Comments at 6; UEN NPRM Comments at 3. A target of 1 Gbps per 1,000 students will also achieve several of the bandwidth goals recommended by standardized testing consortia, equipment manufacturers, and digital curriculum providers. *See* Partnership for Assessment of Readiness for College and Careers (PARCC), Technology Guidelines for PARCC Assessments Version 4.0 (February 2014), http://parcconline.org/technology (last visited Apr. 11, 2014) (recommending minimum connectivity of 100 Kbps/student to support PARCC assessments simultaneously with regular instructional and administrative activities); Smarter Balanced Assessment Consortium, The Smarter Balanced Technology Strategy Framework and Testing Device Requirements, p. 16, http://www.smarterbalanced.org/wordpress/wp-content/uploads/2011/12/Tech_Framework_Device_Requirements_11-1-13.pdf (last visited Apr. 11, 2014) (recommending minimum connectivity of 20 Kbps/student to be tested simultaneously); Cisco White Paper at 16 (recommending Internet access connectivity of 500 Kbps/student for 2014 and 2 Mbps/student for 2018, and WAN connectivity of 10 Mbps/student by 2018); Xirrus NPRM Comments at 3 (concurring with Cisco targets); HP NPRM Comments at 9 (recommending connectivity of at least 5 Gbps for schools with 500 students and 1 Gbps for schools with 100 students); Amplify NPRM Comments at 7-8 (recommending 250 Kbps/student connectivity); McGraw-Hill NPRM Comments at 7-8 (concurring with Cisco targets).

[91] *See, e.g.*, Oregon Districts Ex Parte at 2; Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed Sept. 30, 2013) (Kansas Districts Ex Parte).

[92] *See, e.g.*, Florida DSM NPRM Comments at 4; LAUSD NPRM Comments at 11; NCTA NPRM Comments at 6-7.

comprehensive analysis of schools' actual broadband needs before establishing specific bandwidth targets.[93]

41. We find that a WAN connectivity target measured by the capacity of connections available to schools properly balances the concerns identified by commenters opposed to the SETDA bandwidth targets with the need to ensure that all schools have affordable access to high-speed broadband that supports digital learning. Several factors are driving the need to increase bandwidth to and within schools. School districts across the country are implementing one-to-one and BYOD programs that require more robust connectivity.[94] Cisco notes that the density of devices and demand on the network in many schools surpasses the demand of other high-density environments such as hotels, restaurants, and corporate offices.[95] The peak bandwidth usage of media-rich curriculum and streaming video applications far exceeds the usage of basic web browsing and e-mail.[96] Online assessments will require high-speed connections that are also highly reliable and secure.[97] A target of ensuring that all schools connected to WANs have a connection scalable to 10 Gbps per 1,000 students will ensure that schools have access to bandwidth sufficient to meet growing demand while maintaining the flexibility to purchase the bandwidth that meets their needs.

42. We direct the Bureau to continue analyzing data on WAN connectivity. As with the Internet connectivity targets, this ongoing examination should consider input from schools and libraries. We therefore direct the Bureau to seek feedback from schools and libraries, as part of the E-rate application process, on its WAN connectivity and whether its WAN provides sufficient bandwidth to meet the schools' and libraries' needs.

43. For libraries, our record is not sufficiently developed to establish a performance measure and a WAN connectivity target at this time. However, to the extent that libraries are connected by a WAN, similar to our approach with schools, we will measure the total number of libraries that have a connection capable of providing a data service scalable to at least 10 Gbps.

44. *Affordability*. As with Internet access, we will measure affordability of WAN connections by tracking pricing as a function of bandwidth. We also direct the Bureau, working with OMD and USAC, to regularly report normalized pricing (e.g., price per Mbps) for WAN connectivity and to identify any outliers.

### c. Internal Connections

45. *Connectivity Targets.* Pending the development of a suitable available bandwidth measure for internal connectivity, we find that a survey of school districts and libraries is the best method to gauge the sufficiency of internal connections at this time. Our record is not sufficiently well developed at this time to allow us to identify the appropriate level of bandwidth per device in either schools or libraries. We are also concerned that schools and libraries would find such a measure difficult to report,

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[93] *See, e.g.*, NCTA/WTA NPRM Reply Comments at 15; Nebraska OCIO NPRM Comments at 5; SDDOE NPRM Comments at 5.

[94] *See, e.g.*, Georgia Districts Ex Parte at 2 (Forsyth County estimates that 50,000 unique devices connect to Wi-Fi every day in a 42,000 student district).

[95] *See* Cisco White Paper at 8, 31.

[96] *See* Letter from Regina M. Keeney, Lawler, Metzger, Keeney & Logan, LLC, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach. (filed Jan. 13, 2014) (Amplify Ex Parte); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1-2 (filed March 18, 2014) (Summit PS Ex Parte) (network for tech-saturated charter districts delivers approximately 750 Kbps/student).

[97] *See* Massachusetts Districts Ex Parte at 3.

as the responsible individuals may not have access to the necessary technical data. We therefore decline to adopt such a measure at this time, but direct the Bureau to continue to develop the record on this issue.

46. Several commenters emphasize that Wi-Fi performance is best measured by throughput to the student or library patron device rather than classroom or library coverage.[98] Other commenters suggest that the high-density Wi-Fi demands of schools require at least one high-capacity wireless access point (WAP) per classroom.[99] Library commenters discuss increasing Wi-Fi demand, but generally did not endorse specific Wi-Fi targets.[100] At this time, we do not think counting the number of WAPs is the right approach to measuring connectivity within schools and libraries. Several unique considerations impact WLAN design. For example, some school districts opt for very high-capacity WAPs that deliver ample bandwidth to multiple classrooms,[101] while others have installed multiple lower-speed WAPs per classroom.[102] Distribution of WAPs in libraries depends on specific factors such as user density and building design.[103] Therefore, we agree with commenters that available bandwidth per device is a more suitable measure to determine whether internal connections are sufficient to support the needs of each individual user at a school or library.[104] However, we need further information from schools and libraries before we adopt a specific measure. We therefore direct the Bureau to seek feedback from schools and libraries, as part of the survey, on the sufficiency of their LAN/WLAN capacity and coverage to support the educational or library activities conducted at their school or library site. The answer to this question will help provide the Commission with insight on progress towards the stated goal pending the development of a more technical measure.

47. *Affordability.* Consistent with our decision to use a survey to measure internal connections availability pending the development of a more precise measure, we direct the Bureau, as part of the survey, to also seek feedback from those schools and libraries that have insufficient WLAN capacity and coverage to support the educational or library activities conducted at their school or library site as to the reason for the lack of sufficient capacity and coverage (e.g., affordability of equipment, or lack of demand for Wi-Fi).

### 3. Reporting and Further Development of Measures and Targets

48. We direct the Bureau to revise the information collections from E-rate applicants and vendors to collect data regarding the specific measures adopted above.[105] The Bureau should analyze data collected from applicants to track progress toward meeting program goals and to inform revisions to the performance measures and E-rate program rules, and if necessary, to the goals themselves.[106] We also

[98] *See, e.g.*, Cisco White Paper at 23; Xirrus NPRM Comments at 2; Jennings NPRM Comments at 1-2.

[99] *See, e.g.*, Kansas Districts Ex Parte at 2; MCNC Ex Parte at 2; Round Rock ISD Ex Parte at 2.

[100] *See, e.g.*, ALA PN Comments at 19-19, ULC PN Comments at 10.

[101] *See* Georgia Districts Ex Parte at 2 (discussing Forsyth County's purchase of Xirrus 16-radio WAPs); Palestine ISD Ex Parte at 2.

[102] *See* LAUSD Ex Parte at 2 (LAUSD installs two WAPs per classroom due to local regulations).

[103] *See, e.g.*, Sacramento Library Ex Parte at 1.

[104] *See* Houston ISD NPRM Comments at 2; ALA NPRM Comments at 11-12; ULC PN Comments at 6, Xirrus NPRM Comments at 2; iFiber NPRM Comments at 4.

[105] *See, e.g.*, Florida DMS NPRM Comments at 5; Verizon NPRM Comments at 8.

[106] Se*e, e.g.*, Imperial County NPRM Comments at 6; Cisco White Paper at 26; ISTE NPRM Comments at 9; Verizon NPRM Comments at 12.

agree with commenters that data should be publicly accessible so that applicants can make informed decisions regarding broadband purchasing and network design.[107]

49. In addition to the connectivity and affordability measures adopted above, we agree with commenters who recommend that the Commission evaluate actual bandwidth usage and network performance statistics to continually refine our connectivity targets over time.[108] Digital education and the technologies that deliver it are rapidly evolving. In such a dynamic environment, it is important that we understand changes in the bandwidth demands of school and library networks supported by E-rate as well as the performance of those networks.[109] We direct the Bureau to work with school districts and libraries to develop network measurement methods that gather data on network usage and performance.

### B. Maximizing the Cost-Effectiveness of Spending for E-rate Supported Purchases

#### 1. Goal

50. We adopt as our second goal maximizing the cost-effectiveness of spending for E-rate supported purchases, thereby minimizing the contribution burden on consumers and businesses and maximizing the benefit of each dollar spent on services for schools and libraries.[110] Our rules require that applicants "select the most cost-effective service offering."[111] Moreover, when evaluating bids, applicants "may consider relevant factors other than the pre-discount prices . . . , but price should be the primary factor considered."[112] Commenters broadly support the Commission's proposal to adopt cost-effectiveness as a goal of the E-rate program, in recognition of the limited amount of E-rate funds available to meet the connectivity needs of all schools and libraries throughout the nation.[113] This goal is also consistent with section 254(h)(2)(A) of the Act, which requires that support to schools and libraries be "economically reasonable."[114] As the Commission recognized in the *E-rate Modernization NPRM*, we have a "responsibility to be a prudent guardian of the public's resources."[115]

#### 2. Measures

51. We will focus our evaluation of progress towards this goal by measuring the prices paid for the E-rate services delivered to schools and libraries. We will separately measure and track the prices

[107] *See, e.g.*, New America NPRM Comments at 31; Cisco White Paper at 26; *see also infra* paras. 158-167 (adopting pricing transparency requirements) and paras. 258-259 (adopting open data requirements).

[108] *See, e.g.*, Richmond County NPRM Comments at 2; Xirrus NPRM Comments at 1; Google NPRM Reply Comments at 9.

[109] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11313, para. 21.

[110] *See id.* at 11318, paras. 41-42; *High-Cost Universal Service Support et al.*, CC Docket No. 96-45, Order on Remand and Memorandum Opinion and Order, 25 FCC Rcd 4072, 4087, para. 28 (2010) (stating that "if the universal service fund grows too large, it will jeopardize other statutory mandates, such as ensuring affordable rates in all parts of the country"). Commenters support this goal as a cornerstone of the E-rate program. *See* EIN NPRM Comments at 2; Nebraska OCIO NPRM Comments at 6; WVDE NPRM Comments at 25; COMPTEL NPRM Reply Comments at 10-11; Illinois CMS NPRM Reply Comments at 1; NTCA/WTA NPRM Reply Comments at 10.

[111] 47 C.F.R. § 54.511(a).

[112] *Id*.

[113] *See, e.g*., EIN NPRM Comments at 2; Nebraska OCIO NPRM Comments at 6; WVDE NPRM Comments at 26; COMPTEL NPRM Reply Comments at 10-11; NTCA/WTA NPRM Reply Comments at 10.

[114] *See* 47 U.S.C. § 254(h)(2)(A).

[115] *E-rate Modernization NPRM*, 28 FCC Rcd at 11318, para. 42. *See Vermont Pub. Serv. Bd. v. Fed. Commc'n Comm'n,* 661 F.3d 54, 65 (D.C. Cir. 2011) (finding that, in the context of section 254, "as the Commission rightly observed, it has a responsibility to be a prudent guardian of the public's resources."); *Universal Service First Report and Order*, 12 FCC Rcd at 8845-46, para. 125.

paid for the E-rate services delivered to schools and libraries for *connections to* and for *connections within* schools and libraries. Detailed pricing information is essential to our goal of maximizing cost-effectiveness as well as "affordability" under our first goal. We thus direct the Bureau and OMD working with USAC, as necessary, to develop the process by which we will measure, track, and report on the prices paid for E-rate services. In addition, we will continue to monitor the results of USAC's audits and other reports to track progress in reducing improper payments and waste, fraud and abuse.

52. For connectivity to school and library locations, we will measure and report on prices paid as a function of bandwidth (e.g., dollars per Mbps) and also as a function of number of users (or unique devices). In addition, we will track pricing as a function of various potential cost drivers, which may include physical layer type (e.g., fiber, copper, coax, fixed wireless), service type (e.g., DSL, cable modem, metro Ethernet, Internet access), geography (e.g., rural, urban), carrier, carrier type, and purchasing mechanism (e.g., individual school, district, regional consortium).

53. An equally important component of cost-effectiveness is the matching of capacity purchased with need.[116] We direct the Bureau, working with USAC, to develop and maintain best practices and benchmarks regarding network utilization, network architectures, network performance, and network optimization and management.

54. For connectivity within schools and libraries, we will measure and report pricing as a function of number of users or unique devices. We will track pricing of eligible expenses associated with LANs and WLANs (e.g., Wi-Fi), including pricing of eligible network components (e.g., switches, routers, wireless access points, cabling), managed services, and other eligible services associated with LANs and WLANs. In addition to tracking the pricing and capacity, we will seek to track utilization and performance of these internal connections to more fully measure the value delivered with E-rate support. We will also track replacement and upgrade cycles and LAN/WLAN architectures to accurately measure cost-effectiveness.

### C. Making the E-rate Application Process and Other E-rate Processes Fast, Simple and Efficient

#### 1. Goal

55. We adopt as our third goal making the E-rate application process and other E-rate processes fast, simple, and efficient.[117] Each year, USAC reviews tens of thousands of funding requests from schools and libraries, and processes thousands of appeals, invoice requests, deadline extension requests, and additional inquiries from schools, libraries, and other parties requesting information.[118] Simplifying and improving these procedures will help applicants receive their funding in a timely fashion, which will allow them to plan better and maximize the impact of their support. Simplification of the E-rate application process also eases the administrative burden on applicants—which is particularly important for smaller schools and libraries that lack extensive administrative support.[119] Conversely, complexity and delay discourage participation and ultimately result in fewer schools and libraries fully investing in needed high-speed broadband connections.

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[116] *See, e.g.*, Friday Institute NPRM Comments at 3 (explaining that a schools connection is only upgraded when the "school consistently reaches 60 percent utilization during the school day").

[117] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11318-19, paras. 45-46.

[118] *Id.* at 11318-19, para. 45.

[119] Some commenters indicate that the administrative complexities have forced applicants to incur the additional expense of hiring a consultant who has expertise in navigating the E-rate application process. *See, e.g.*, San Mateo NPRM Comments at 2. While other commenters indicate that consultants provide advice and assistance that goes well beyond the filing of the FCC forms. *See, e.g.*, New Hope NPRM Reply Comments at 5-6; Houston ISD NPRM Comments at 5.

56. Commenters overwhelmingly agree that making E-rate process fast, simple, and efficient is critical to the overall success of E-rate.[120] Commenters specifically highlight, among other things, the importance of simplicity and transparency in the application submission and review process,[121] and the need for timeliness in making funding commitments and paying invoices,[122] reclaiming unused funds,[123] and completion of the application and selective review processes.[124] We recognize that there are a number of considerations that compete with our efforts to simplify the program for applicants, speed processing of applications and appeals, and minimize overhead costs. For example, we will need to appropriately balance our need for data to appropriately monitor program performance, with our efforts to minimize the application burden on applicants.[125] Likewise, we must ensure that a simplified E-rate program does not open the door to waste, fraud, or abuse.

### 2. Measures

57. In 2007, the Commission adopted certain E-rate performance measurements related to the application and invoicing processes and the resolution of appeals submitted to USAC.[126] Building on that work, in the *E-rate Modernization NPRM* the Commission sought comment on what additional measures we should adopt to support the goal of making the E-rate application process and other E-rate processes

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[120] *See, e.g.*, Arkansas NPRM Comments at 10; Butte County NPRM Comments at 5; California SBA NPRM Comments at 4; CenturyLink NPRM Comments at 4-5; Eastex/Riviera NPRM Comments at 2; EdLiNC NPRM Comments at 2; Hawaii NPRM Comments at 11-12; HP NPRM Comments at 17; iFiber NPRM Comments at 4; Intrafinity NPRM Comments at 6; Imperial County NPRM Comments at 19-20; MDTC NPRM Comments at 5; Merit NPRM Comments at 6; METLA NPRM Comments at 10; LEAD NPRM Comments at 7; NAFIS NPRM Comments at 2; Pacifica NPRM Comments at 1; San Mateo NPRM Comments at 2; Verizon NPRM Comments at 19; Vermont DOL NPRM Comments at 1; Visions NPRM Comments at 2; Digital Promise NPRM Reply Comments at 4-5; Gates NPRM Reply Comments at 5; Kansas Library NPRM Reply Comments at 2; Windstream NPRM Reply Comments at 3-4.

[121] *See, e.g.*, Capistrano USD NPRM Comments at 4; Fairfax PS NPRM Comments at 2; Imperial County NPRM Comments at 19-20; LEAD NPRM Comments at 7; Merit NPRM Comments at 6; MMTC NPRM Comments at 19; San Mateo NPRM Comments at 2; Ednetics NPRM Reply Comments at 2; Missouri DOE NPRM Reply Comments at 1; Vigo County NPRM Reply Comments at 2.

[122] *See* EIN NPRM Comments at 2; ENA NPRM Comments at 15-16; SECA NPRM Reply Comments at 3-4; VectorUSA NPRM Comments at 2.

[123] *See* Clark County NPRM Comments at 6; Richmond County NPRM Comments at 4; COMPTEL NPRM Reply Comments at 19; TelePacific NPRM Comments at 3.

[124] *See* UEN NPRM Comments at 3.

[125] *See, e.g*., CenturyLink NPRM Comments at 4-5 (stating that many of the NPRM's proposals will serve to increase administrative burdens); Schoolwires NPRM Comments at 9-10 (survey results found that most of its schools are opposed to additional burdens from the E-rate program and that 60 percent said they would discontinue the process if burdens were increased).

[126] *See 2007 USF Program Management Order*, 22 FCC Rcd at 16392-94, paras. 44-49; *E-rate Modernization NPRM*, 28 FCC Rcd at 11319, para. 47. Specifically, the Commission required USAC to provide data, on a funding year basis, by reporting the number of applications and funding request numbers (FRNs) submitted, rejected, and granted, and the processing time for applications and FRNs. *2007 USF Program Management Order*, 22 FCC Rcd at 16392-93, paras. 44-45. The Commission also required USAC to document the amount of time it takes to make a billed entity applicant reimbursement payment to the service provider, and the number of paid and rejected invoices. *Id.* at 16393, paras. 46-48. Additionally, the Commission required USAC to determine the percentage of appeals resolved by USAC within 90 days from the date of appeal, and how long it takes to process 50 percent, 75 percent, and 100 percent of the pending appeals from the schools and libraries division. *Id.* at 16393-94, para. 49. By "pending appeal" we mean an appeal or request for review filed by an applicant that has not yet been decided by USAC.

fast, simple and efficient.[127] While commenters are very supportive of streamlining and simplifying the administrative process, few offer actual performance measures to support this goal.[128]

58. Based on our experience with the E-rate program, as an initial measure, we will evaluate progress towards our third goal by measuring the timely processing of funding commitments to eligible schools and libraries by USAC by tracking the processing time against an established target.[129] Working with OMD, USAC has dramatically improved its rate of application processing for this funding year (funding year 2014). In both funding year 2013 and 2014, USAC received applications requesting between $2.6 and $2.7 billion in priority one E-rate support.[130] By July 1, 2013, USAC had only committed approximately $181 million in support.[131] By contrast, as of July 1, 2014, USAC has already committed approximately $1.22 billion in support.[132] In 2013, USAC did not reach $1 billion in commitments until October.[133]

59. We applaud the progress USAC and OMD have made in improving the timeliness of processing of funding commitments to eligible schools and libraries. In light of this progress, and to ensure continued progress and further expedite the commitment process and increase the timeliness of funding commitment decisions, we direct USAC to aim to issue funding commitments or denials for all "workable" funding requests by September 1st of each funding year.[134] A September 1st deadline provides USAC with approximately five months beyond the application filing window deadline to review all timely filed and complete funding requests and gives applicants certainty regarding a funding decision for those timely filed and complete requests by the beginning of the school year. "Workable" means that a funding request is filed timely and is complete, with all necessary information, to enable a reviewer to make the appropriate funding decision, and the applicant, provider, and any consultants are not subject to investigation, audit, or other similar reason for delay in a funding decision. Funding requests from applicants that decline to respond to USAC inquiries over the summer may be considered "unworkable" for purposes of this performance goal, though USAC will process these applications as quickly as possible when school staff return for the year. USAC shall continue to report at least monthly on its progress toward this goal, based on the dollars of requests processed and the total count of schools and libraries represented in those requests, as well as any other specific metrics OMD identifies, and on any obstacles to achieving the application processing target.

60. In adopting this target, we recognize that even "workable" funding requests may be time consuming for USAC to process and may, after initial review, require further input from the applicant

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[127] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11319-20, paras. 48-51.

[128] *See supra* n.120.

[129] *See* E-rate Central NPRM Comments at 11 (stating that firm USAC deadlines may not be feasible, but the Commission should at least establish reasonable targets to set expectations).

[130] *See* Letter from Mel Blackwell, Vice President, USAC, to Julie Veach, Chief, Wireline Competition Bureau (April 22, 2013), http://www.usac.org/_res/documents/sl/pdf/tools/news/FY2013-Demand-Estimate.pdf (last visited June 20, 2014) (2013 USAC Demand Letter); Letter from Mel Blackwell, Vice President, USAC, to Julie Veach, Chief, Wireline Competition Bureau (April 17, 2014), http://www.usac.org/_res/documents/sl/pdf/tools/news/fy2014-demand-estimate.pdf (last visited June 20, 2014) (2014 USAC Demand Letter).

[131] *See* USAC, Schools and Libraries, Data Retrieval Tool, http://www.slforms.universalservice.org/DRT/Default.aspx (last visited June 20, 2014).

[132] *Id*.

[133] *Id*.

[134] We recognize that USAC may not be able to meet the September 1st deadline for funding year 2015 in light of the significant changes we are making to the program in this Report and Order, though we direct USAC and OMD to make every effort to make application processing as fast as possible even during this transitional year.

before USAC can issue a funding commitment.[135] Our adoption of a specific application processing target should not affect in any way USAC's contacts with applicants to seek additional information concerning a funding request and USAC's thorough review of each application. USAC must continue to provide applicants with an opportunity to respond to their questions. While we seek to expedite USAC's processing of applications, we remain committed to guarding against waste, fraud, and abuse in the E-rate program. We note that failure of an applicant to timely respond to requested information could constitute an obstacle to receiving a funding decision by the target date. Therefore, we strongly encourage applicants to timely respond to USAC requests for information.

61. We will also evaluate our progress towards the third goal by having USAC survey applicants and service providers about their experience with the program. A survey will provide useful and useable information to USAC and to the Commission about what is working and what needs to be improved.

62. These performance measurements, taken together, will help provide greater certainty to applicants and providers, and will assist applicants in more timely deployment of eligible services. Additionally, these measures will help to ensure that the E-rate program is operated as efficiently as possible by minimizing the need for the submission and review of other requests, such as service delivery deadline extensions, service substitutions, service provider identification number (SPIN) changes and FCC Form 500 filings to change contract expiration dates, which are often necessitated due to the delay in the issuance of timely funding commitment decisions letters.[136]

## IV. ENSURING AFFORDABLE ACCESS TO HIGH-SPEED BROADBAND SUFFICIENT TO SUPPORT DIGITAL LEARNING IN SCHOOLS AND ROBUST CONNECTIVITY FOR ALL LIBRARIES

63. Having set our goals for the E-rate program, we now turn to the process of modernizing the program to meet each of those goals. In this section, we begin to update the E-rate program to ensure that schools and libraries have affordable access to the high-speed broadband connections needed for digital learning. The record in this proceeding and our own analysis of the program lead us to a particular focus on the internal connections, including Wi-Fi, needed for robust broadband connectivity in all classrooms and libraries.

64. Wi-Fi is a transformative technology for education, allowing schools and libraries to transition from computer labs to one-to-one digital learning. Yet, in most funding years, the E-rate program has been able to provide priority two support for internal connections, including Wi-Fi, only to schools and libraries entitled to the highest discount levels.[137] In funding year 2012, for instance, the program committed approximately $800 million for internal connections[138] and was only able to fund applicants at the 90 percent discount level. As a result, nearly 60 percent of that funding went to urban

[135] *See* CRW NPRM Comments at 6; Knox County NPRM Comments at 17-21 (stating that USAC should not be rushed to issue a funding commitment until it has properly reviewed a funding request).

[136] *See* SECA NPRM Reply Comments at 3-4.

[137] For example, in funding year 2012, USAC provided support to only the 90 percent discount rate for internal connections. *See* USAC, Schools and Libraries, Search Commitments, Funding Year 2012, http://www.usac.org/sl/tools/commitments-search/default.aspx (showing no support for internal connections below the 90 percent discount level).

[138] *See* USAC, FCC Filings, 2014 Third Quarter Appendices, Fund Size Projection Summary, at 37, http://www.universalservice.org/about/tools/fcc/filings/2014/Q3/USAC%203Q2014%20Federal%20Universal%20Service%20Mechanism%20Quarterly%20Demand%20Filing.pdf (last visited June 12, 2014).

applicants—almost double the share of students in urban schools nationwide.[139] In 2013, for the first time ever, no E-rate support was available for internal connections.[140]

65. By contrast, the E-rate program has always been able to meet demand for services that provide connectivity to schools and libraries.[141] However, only about half of the $2.4 billion E-rate budget is used to support priority one funding requests focused on broadband connectivity to schools and libraries.[142]

66. In short, the E-rate program has become increasingly ill-equipped to meet the demands of the modern classroom and library. Therefore, we now act to modernize E-rate to ensure more equitable, reliable support for Wi-Fi networks, and other internal connections supporting broadband services, within schools and libraries. While we focus in this Report and Order on providing funding for internal connections, we remain committed to ensuring schools and libraries have high-speed connections to their buildings. In order to help ensure E-rate funding is available to support high-speed broadband to and within schools and libraries, we also eliminate support for certain legacy, non-broadband services to help free up funding for these internal broadband connections. We begin, however, with a short review of our legal authority to set the list of E-rate supported services and define the mechanisms of E-rate support.

### A. Legal Authority

67. Sections 254(c)(1), (c)(3), (h)(1)(B), and (h)(2) of the Communications Act collectively grant the Commission broad and flexible authority to set the list of services that will be supported for eligible schools and libraries, as well as to design the specific mechanisms of support.[143] This authority reflects Congress's recognition that technology needs are constantly "evolving" in light of "advances in telecommunications and information technologies and services."[144]

68. In creating the E-rate program in 1997, in the *Universal Service First Report and Order*, the Commission designated all commercially available telecommunications services as services eligible

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[139] We reviewed and classified the 2012 priority two funding commitments and the associated schools and students based on NCES district-level urban-centric locale codes. *See* USAC, Schools and Libraries, Funding Request Data Retrieval Tool, http://www.slforms.universalservice.org/DRT/Default.aspx (last visited June 17, 2014) (providing funding year 2012 commitment data for "internal connections" and "basic maintenance," collectively "priority two"); NCES, Local Education Agency (School District) Universe Survey Data, http://nces.ed.gov/ccd/pubagency.asp (last visited June 17, 2014) (providing basic information about public school districts, including student counts and urban-centric locale codes). "Urban" includes the "City" NCES locale codes, and "Non-Urban" includes "Suburban," "Town," and "Rural" NCES locale codes. *See* NCES, Identification of Rural Locales, http://nces.ed.gov/ccd/rural_locales.asp (last visited June 17, 2014) (explaining the urban-centric locale code system and how it classifies territory into four major types: city, suburban, town, and rural).

[140] *See* USAC, Schools and Libraries, Latest News, 2/27/2014 - Update on Priority 2 Commitments for FY2013, http://usac.org/sl/tools/news/default.aspx (last visited Apr. 30, 2014).

[141] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11329, para. 83.

[142] Letter from Melvin R. Blackwell, Vice President, Schools and Libraries Division, Universal Service Administrative Company, to Lisa Hone, Deputy Chief, Telecommunications Access Policy Division, Federal Communications Commission, WC Docket No. 13-184, at Attach. (filed June 12, 2014) (USAC Broadband Connectivity Data Response FY2012 and 2013). This data was created by USAC's PIA reviewers' classification of each funding request number (FRN) based on the predominant service or product being requested. Because FRNs can contain multiple products or services, and determination of the predominant service or product requires case-by-case judgment, these estimates are inevitably imperfect. For any given product or service, the estimates exclude FRNs where that product or services is listed but judged not to be predominant. The estimates also include funding for other products or services listed together with the predominant product or service on the same FRN.

[143] 47 U.S.C. §§ 254(c)(1), 254(c)(3), 254(h)(1)(B), 254(h)(2).

[144] 47 U.S.C. § 254(c)(1).

for support (or discounts) under the E-rate program.[145] At the same time, the Commission determined that it could provide E-rate support for additional, non-telecommunications services, particularly Internet access, email, and internal connections, provided by both telecommunications carriers and non-telecommunications carriers.[146] The Commission reasoned that such services enhance access to advanced telecommunications and information services for public and non-profit elementary and secondary school classrooms and libraries.[147]

69. Below, we update this eligible services framework for today's needs. Revisiting our approach to this issue is consistent with 254(c)(1)'s definition of universal service as an "evolving level" of service, which the Commission must revisit "periodically," "taking into account advances in telecommunications and information technologies and services." We are also guided by section 254(h)(2)(A)'s directive that we "enhance, to the extent technically feasible and economically reasonable, access to *advanced* telecommunications and information services" for schools and libraries.[148]

70. Taken together, and considered in light of the Commission's "responsibility to be a prudent guardian of the public's resources," these provisions lead us to take a more focused approach to the definition of E-rate eligible services today than was adopted in 1997.[149] In particular, based on the record of this E-rate modernization proceeding, and as described in more detail below, we find that E-rate support should be transitioned to focus specifically on those telecommunications and information services, including associated inside wiring, necessary to support broadband to and within schools and libraries. The Commission has long supported these types of services, and we think it clear that the statute authorizes their support. Section 254(c)(1) and (c)(3) each provide ample authority for the support of broadband telecommunications services, and sections 254(c)(3), (h)(1)(B), and (h)(2) provide authority to support advanced telecommunications and information services, including associated inside wiring.[150]

71. At the same time, in order to focus E-rate funding on these services, we must redirect funding away from services that are less essential to education, less directly tied to educational purposes, and/or more likely to be affordable without E-rate support than when the program began, including fixed and mobile voice service.[151] The statute also amply supports this decision. Even if the E-rate fund was not capped at its current level, we have a responsibility to be prudent stewards of universal service funds,

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[145] *Universal Service First Report and Order*, 12 FCC Rcd at 9006-08, paras. 431-434; *see also* 47 U.S.C. § 254(c)(1) and (c)(3).

[146] *Universal Service First Report and Order*, 12 FCC Rcd at 9008-15, paras. 436-449, and 9084-9090, paras. 589-600; *see also* 47 U.S.C. §§ 154(i) and 254(c)(1),(3), (h)(1)(B) and (h)(2).

[147] *See Universal Service First Report and Order*, 12 FCC Rcd at 9008-15, paras. 436-449, and 9084-9090, paras. 589-600.

[148] 47 U.S.C. §§ 254(h)(1)(b) and 254(h)(2)(A) (emphasis added). *See also Texas Office of Public Utility Counsel v. FCC*, 183 F.3d at 444 (the Commission's "primary directive is to 'enhance access to advanced telecommunications and information services' for schools and libraries").

[149] *Vermont Pub. Serv. Bd. v. Fed. Commc'n Comm'n*, 661 F.3d 54, 65 (D.C. Cir. 2011).

[150] Given that both 254(c)(1) and (c)(3) provide authority to support broadband telecommunication services, we need not conduct a detailed analysis of the (c)(1) factors here, but we are confident that they amply support our decision to support broadband telecommunication services within the E-rate program, *See, e.g.*, 254(c)(1)(A) (in determining what services to support under (c)(1), the Commission "shall consider the extent to which such telecommunications services are essential to education . . .").

[151] The legislative history of subsection 254(h) of the Act speaks to a legislative purpose that is as relevant today as it was in 1996: "[T]he provisions of subsection (h) will help open new worlds of knowledge, learning and education to all Americans—rich and poor, rural and urban. They are intended, for example, to provide the ability to browse library collections, review the collections of museums, or find new information on the treatment of an illness, to Americans everywhere via schools and libraries." H.R. Conf. Rep. 104-458, at 132 (1996), *reprinted in* 1996 U.S.C.C.A.N. at 144.

knowing that that those funds are ultimately paid for by consumers.[152] Because the amount of available E-rate funding is finite, we must make thoughtful decisions about what services are not just permissible to support, but are the most essential to support for schools and libraries. We have relied on the record to inform these choices.[153]

72. As we focus E-rate support on high-speed broadband, we recognize that we will ultimately reach a point where E-rate no longer supports voice service, which we have defined as the 254(c)(1) supported service for purposes of the High Cost (Connect America Fund) and Lifeline programs.[154] But nothing in section 254(c)(1) or elsewhere bars the Commission from establishing different supported services for different elements of the overall Universal Service Fund.[155]

73. Indeed, in establishing the definition of the telecommunications services that are supported by the Federal universal service support mechanisms, the Commission is charged with considering the extent to which the telecommunications services meet the criteria section 254(c)(1)(A)-(D).[156] This list of criteria implies that the definition of supported services can vary depending on the particular universal service program at issue. For example, section 254(c)(1)(A) requires the Commission, in designating supported services to consider the extent to which services "are essential to education, public health, *or* public safety."[157] Congress recognized that telecommunications services deemed essential for education (and by extension the E-rate program) may well not be the same as telecommunications services essential for health (or the Rural Health Care program). Likewise, what is consistent with the public interest, convenience and necessity in section 254(c)(1)(D) could vary depending on the specific universal service program at issue.[158]

74. Moreover, reading section 254(c)(1) to bar the Commission from establishing different eligible services for different universal service programs would place section 254(c)(1) in tension with section 254(b), which requires the Commission to ensure that rates charged to consumers nationwide are "just, reasonable, and affordable," and therefore to keep universal service contributions, typically passed through in customers' rates, as low as possible.[159] We think the better reading of 254(c)(1) provides the Commission authority to support services in more granular ways, such as only in the specific USF programs where the Commission concludes that such a definition of supported services is warranted after considering the (c)(1) factors, and thereby minimize the overall USF burden on consumers who pay into the Fund.

[152] *See supra* n.115 (citing *Vermont Pub. Serv. Bd. v. Fed. Commc'n Comm'n*, 661 F.3d 54, 65 (D.C. Cir. 2011) (finding that, in the context of section 254, "as the Commission rightly observed, it has a responsibility to be a prudent guardian of the public's resources.").

[153] Our exercise of authority under section 254 is informed by, and advances the objectives of, section 706 of the 1996 Act, particularly with respect to encouraging deployment of broadband to elementary and secondary schools and classrooms. 47 U.S.C. § 1302.

[154] *See, e.g.*, 47 C.F.R. §§ 54.101, 54.401(a).

[155] To the extent any previous Commission decisions could be read to take a different view of our ability to adopt different definitions of supported services for different elements of the overall Universal Service Fund under 254(c)(1), we reverse those decisions here.

[156] 47 U.S.C. § 254(c)(1)(A)-(D).

[157] 47 U.S.C. § 254(c)(1)(A).

[158] 47 U.S.C. § 254(c)(1)(D).

[159] 47 U.S.C. § 254(b); *see also Vermont Pub. Serv. Bd. v. Fed. Commc'n Comm'n*, 661 F.3d at 65 (D.C. Cir. 2011) (affirming Commission's interpreting of 254(b) as obligating us to consider consumer impact of increased universal service fees).

75. Finally, in the sections that follow, we change to some extent the mechanisms by which E-rate support is allocated and the discount levels provided under the program. Sections 254(c) and 254(h) give the Commission broad authority to design these mechanisms and set discount rates at the level "appropriate and necessary to ensure affordable access to and use of" E-rate supported services.[160] This authority amply supports the changes we make here.

**B. Providing More Equitable Funding for Broadband Within Schools and Libraries**

76. In this section, we focus on providing schools and libraries more equitable access to funding for Wi-Fi networks and other internal connections that allow high-speed connectivity within schools and libraries. We begin by designating internal connections that support broadband connectivity as "category two" services, rather than "priority two" services in recognition of the importance of Wi-Fi networks in connecting students and library patrons. In the short term, in order to provide schools and libraries more access to category two funds over the next two funding years, we accept the recommendation of commenters who suggest that we focus the additional E-rate funds identified by the Bureau earlier this year on internal connections.[161] Consistent with this focus, and with the record in this proceeding on the funding needs for Wi-Fi and other internal connections, we also set an annual budget target of $1 billion for category two services.[162] Next, we increase the minimum contribution rate for these category two services from 10 to 15 percent to encourage applicants to pursue the most cost-effective options. For applicants that apply for category two support during the next two funding years, we also test reasonable maximum per-student and per-library pre-discount budgets for category two services in order to ensure greater access to category two funding sufficient to deploy robust LANs and WLANs. Finally, we update our rules regarding eligible services to align with this new focus on providing E-rate support to services necessary for broadband connectivity and direct the Bureau to update the ESL accordingly.[163]

**1. Providing Support for Internal Connections**

77. As an initial matter, we change the E-rate program's existing priority funding nomenclature.[164] We agree with commenters that schools and libraries should take a "whole network" approach to planning their purchase of E-rate eligible services that bring connectivity both to the building and to devices.[165] In place of the priority nomenclature, we designate the services needed to support

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[160] 47 U.S.C. § 254(h)(1)(B); s*ee also* 47 U.S.C. § 254(h)(1)(B) ("The Commission shall establish competitively neutral rules . . . to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries . . .").

[161] *See, e.g.*, EdLiNC PN Comments at 11-12; AASA PN Comments at 4-5.

[162] In adopting a $1 billion target for Wi-Fi and other connections we do not preclude the possibility of spending more than $1 billion in any funding year in which demand for category two funding exceeds $1 billion and more than $1 billion is available to be spent on category two services after category one demand has been met.

[163] *See* 47 C.F.R. § 54.502(b) (requiring the Bureau to issue a Public Notice seeking comment on the Eligible Services List and a final version at least 60 days prior to the opening of the funding year window).

[164] *See* 47 C.F.R. § 54.507, as amended herein (previously setting out rules of priority for internal connections). *See, e.g.*, ADTRAN NPRM Comments at 22 (supporting); American e-rate NPRM Comments at 8 (supporting the elimination of priorities); Cox NPRM Comments at 8-9 (supporting more equitable access to internal connections funding); HITN NPRM Reply Comments at 5 (favoring elimination of the priorities to focus on needs); NCTA NPRM Reply Comments at 8 (supporting elimination); SmartEdgeNet NPRM Reply Comments at 11-13 (saying distinction is artificial).

[165] *See, e.g.*, Cisco NPRM Comments at 6 (asking that the priority system be abandoned in favor of a whole network approach); MMTC PN Comments at 3 (stating that eliminating priority one and priority two distinctions would

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broadband connectivity to schools and libraries as "category one" services, and those needed for broadband connectivity within schools and libraries as "category two" services because we recognize that deploying internal connections is an important element in connecting schools and libraries to high-speed broadband.

78. For category one services, we are confident that the changes we make to the E-rate program in this Report and Order will ensure that we can continue funding all eligible category one requests, as we continue to evaluate the long-term, overall program needs.[166] For category two services, the additional funding announced by the Bureau earlier this year will allow the Commission to make $1 billion available over each of the next two years.[167] Building on the use of the identified program funds for the next two years, and to give applicants longer-term visibility into our approach, we also set a funding target of $1 billion annually for category two services on an ongoing basis.[168] In contrast to the current system, providing a target of $1 billion a year annually for category two services will ensure greater access to E-rate support for the Wi-Fi networks needed to connect 10 million students a year to 21st Century educational tools. We recognize the concern of some commenters, however, that, in the absence of a full review of long-term program needs, a hard funding allocation for category two services

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better target access to high-capacity broadband, particularly to low-income urban and rural schools); New America PN Comments at 17 (stating that all equipment and services needed for broadband connectivity should be considered priority one).

[166] Demand for priority one services in funding year 2014 was $2.63 billion. Approximately $100 million of this total was for services that we remove from the Eligible Services List for funding year 2015. *See* USAC 2012-13 PIA Funding Request Data Ex Parte (illustrating that for funding year 2013 approximately 4 percent of funding commitments are associated with web hosting, email, mobile data, distance learning/video conferencing services, paging, and domain name registration services). In addition, beginning to phase down the discount rate for voice services will make approximately another $250 million available for broadband support (i.e., $2.63 billion [priority one demand] x 33 percent [proportion of demand associated with fixed and mobile voice] x 29 percent [reduction in funding associated with a 20 percentage point reduction in the average discount rate]). *See* USAC 2012-13 PIA Funding Request Data Ex Parte (illustrating that for funding year 2013 approximately 33 percent of funding commitments are associated with fixed and mobile voice services); *see* Submission for the Record from Funds For Learning, FY2014 E-rate Funding Requests: Telecommunications and Internet Access by Schools & School Districts, WC Docket No. 13-184, at 3 (filed May 14, 2014) (FFL May 14, 2014 Submission for the Record) (showing a 69.0 percent average discount nationwide) (stating that the average priority one discount rate is 69 percent). These demand reductions will likely be offset, at least in part, by increased demand for broadband category one services in funding year 2015. From funding year 2009 through funding year 2014, demand for priority one funding has grown, on average, 5 percent year-over-year (CAGR). Assuming a continuation of this trend in 2015, we would expect total category one demand, net of eligible services changes, to be approximately equal to the funding year 2015 program cap of $2.4 billion: ($2.63 billion - $350 million) * 1.05 = $2.39 billion. On top of this cap, the additional funding identified by the Bureau earlier this year will be available to fund $1 billion for category two services in each of the next two years. *See* Letter from Mel Blackwell, Vice President, USAC, to Julie Veach, Chief, Wireline Competition Bureau, WC Docket No. 13-184 (dated April 17, 2014, filed June 20, 2014); Letter from Mel Blackwell, Vice President, USAC, to Julie Veach, Chief, Wireline Competition Bureau, WC Docket No. 13-184 (dated April 22, 2013, filed June 20, 2013); Letter from Mel Blackwell, Vice President, USAC, to Sharon Gillett, Chief, Wireline Competition Bureau, WCB Docket No. 13-184 (dated April 20, 2012, filed June 20, 2014); Letter from Mel Blackwell, Vice President, USAC, to Sharon Gillett, Chief, Wireline Competition Bureau, WC Docket No. 13-184 (dated April 12, 2011, filed June 20, 2014); Letter from Mel Blackwell, Vice President, USAC, to Sharon Gillett, Chief, Wireline Competition Bureau, WC Docket No. 13-184 (March 10, 2010, filed June 20, 2014); Letter from Mel Blackwell, Vice President, USAC, to Julie Veach, Chief, Wireline Competition Bureau, WC Docket No. 13-184 (dated March 10, 2009, filed June 20, 2014).

[167] *E-rate Modernization Public Notice*, 29 FCC Rcd at 2177, para. 7.

[168] *See infra* section IV.B.4.

could put at risk our ability to provide sufficient support for category one requests.[169] For that reason, the budget we adopt will remain a target, rather than a fixed allocation, as we continue to evaluate the long-term program needs, and we direct USAC to shift funds targeted for category two services to meet all eligible requests for category one services, in any funding year in which demand for category one services exceeds available funds.[170] Given the availability of funding for the next two years, the need for continued analysis of longer-term trends in category one demand, as well as savings from the reforms we adopt today and future additional reforms,[171] we do not increase the overall cap at this time, but seek additional comment on that issue in the attached FNPRM.[172]

79. If demand for internal connections exceeds the available funding for category two services, we will prioritize access to internal connections funding based on concentrations of poverty. Those schools and libraries entitled to a higher discount, based on the district-wide discount methodology described in section VI.B.1., will receive internal connections funding ahead of those entitled to a lower discount rate. If there is insufficient funding available to meet the need at a particular discount rate for category two, we will prioritize funding within a discount rate based on the percentage of students that are eligible for free and reduced school lunches within each applicant's school district. Funding for libraries will be prioritized based on the percentage of free and reduced lunch eligible students in the school district that is used to calculate the library's discount rate. Funding for individual schools that are not affiliated financially or operationally with a school district, such as private or charter schools that apply individually, will be prioritized based on each school's individual free-and-reduced student lunch eligible population.

80. This prioritization method maintains the core of the existing system that E-rate applicants are familiar with, and gives applicants serving the highest poverty populations first access to funds, while allowing us to fund within a discount band even where funding is not sufficient to reach all schools in that band. As explained below, however, and unlike the existing system, we adopt additional measures in an effort to provide the opportunity for a broader range of applicants to obtain funding for category two services.[173]

81. In the event that requests for category one services are less than the available funding and demand for category two services is higher than the $1 billion target for category two services at the close of the funding year window, the Bureau, working with OMD and USAC, may redirect the excess funding to category two services in the same funding year. If USAC does not commit the entire category two budget for a funding year, or committed funds are not used or returned, such funds may be carried forward to be used in subsequent funding years.[174] Each year such funds are available, we direct the Bureau, working with OMD and USAC, to determine the proportion of carry-forward funds to be used for category one and category two services.

[169] *See, e.g.*, Letter from AASA, AFT, AESA, Council, ISTE, NAESP, NAFIS, NCEA, NEA, NPTA, NREAC, and NREA, to Chairman Wheeler et.al, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed June 20, 2014).

[170] For any given funding year, "available funds" will consist of the annual cap, as adjusted annually for inflation, and any unused funds from previous funding years.

[171] *See infra* section VIII.A.

[172] *See, e.g.*, EdLiNC NPRM Comments at 10-11; AASA PN Comments at 2; ALA NPRM Comments at 4; 21st Century Skills PN Comments at 4-5; Council PN Comments at 5; CoSN PN Comments at 9-10; NAESP PN Comments at 5; SECA PN Comments at 2-3.

[173] *See infra* paras. 82-105.

[174] *See* 47 C.F.R. § 54.507, as amended herein.

### 2. Increasing the Minimum Applicant Contribution Rate for Category Two Services

82. In order to ensure more equitable access to limited internal connections funds, we will increase the minimum contribution applicants must make towards E-rate supported category two purchases from 10 to 15 percent. We agree with commenters that requiring applicants to pay a larger share of the cost of E-rate supported category two purchases will spread available universal service funds more widely and increase the incentive for applicants to find the most cost-effective options that meet their internal connection needs.[175]

83. In deciding to reduce the top discount rate for internal connections from 90 percent to 85 percent, as with other changes we are making to the E-rate program, we remain mindful of the challenges faced by our most vulnerable schools and libraries in areas with the highest levels of poverty. Taken together, the changes we make in this Report and Order should benefit all schools and libraries, including those receiving the highest discount rate. At the same time, we have taken a measured approach in making changes that could negatively impact applicants entitled to the highest discount rates. For example, we reduce the top discount rate only for category two services, and only by five percent. Likewise, we phase down support for voice services over several years, to give applicants time to adjust to the loss of support for such services. We also seek to counterbalance potential reductions in funding by adopting proposals aimed at driving down the prices all applicants will pay for E-rate supports services, including increased pricing transparency and encouraging consortia purchasing and bulk buying.

84. We expect that requiring higher matches will lead applicants that have been eligible for 90 percent discounts for priority two services to pursue lower prices for eligible category two services more aggressively. Commenters note that applicants in the highest discount level spend more in pre-discount dollars than those that have a larger required match.[176] Consistent with this analysis, E-rate Central, a member of USAC's 2003 Task Force on Waste, Fraud, and Abuse, observes "many examples of excessive spending by applicants at the highest discount levels, often driven by overly aggressive sales efforts by vendors targeting the poorest schools and libraries."[177] Thus, as the Iowa Department of Education argues, requiring applicants to "[h]av[e] more 'skin in the game' … will guard against waste, fraud, and abuse."[178] We therefore set the highest discount level for category two services at 85 percent. Applicants that would have been eligible for discounts of 86 to 90 percent will now be eligible for an 85 percent discount, and those eligible for a discount of 85 percent or less will see no change. This decision is consistent with a similar change to the Rural Health Care program that requires recipients of the new Healthcare Connect fund to contribute 35 percent of the costs of the support services, which the Commission found "appropriately balances the objectives of enhancing access to advanced

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[175] *See, e.g.*, EdLiNC PN Comments at 12 (suggesting a temporary reduction to spread funds more widely); SECA PN Comments at 9-13; California DOE PN Comments at 3; METLA NPRM Comments at 17 (noting it would encourage more frugal spending); Wisconsin DPI PN Comments at 3-4.

[176] *See, e.g.*, E-Rate Central NPRM Comments at 5 (stating they see too many examples of excessive spending by applicants at the highest discount levels), Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, LLC, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach. at 32 (filed June 17, 2014) (FFL June 21, 2014 Ex Parte) (showing higher spending per building at the 90 percent level for priority two services).

[177] *See, e.g.*, E-Rate Central NPRM Comments at 5.

[178] *See, e.g.*, Iowa DOE NPRM Reply Comments at 10. *See also* E-Rate Central NPRM Comments at 5; METLA NPRM Comments at 18; TIES NPRM Comments at 2; Kentucky DOE NPRM Comments at 4; Riverside USD NPRM Comments at 10; San Jacinto NPRM Comments at 2; CenturyLink NPRM Comments at 8-9, 13; CRW NPRM Comments at 2; eDimension NPRM Comments at 3-4.

telecommunications and information services with ensuring fiscal responsibility and maximizing the efficiency of the program."[179]

85. Although some commenters recommend even higher minimum applicant contribution rates – 20, 25 or even 30 percent (80, 75 or 70 percent maximum discount rates, respectively)[180] – we recognize the concerns voiced by some stakeholders that we not raise the net cost to the most disadvantaged schools and libraries above levels that they can afford.[181] Therefore, in order to minimize the impact of this change on these schools and libraries, we reduce the maximum discount rate only by five percent and only for category two services as a first step. We note that the per-student and per square foot applicant budgets for funding year 2015 and 2016 described below mitigate some of the concerns about overspending at this time. Other commenters agree that the discount level should be changed, but ask for it to be a temporary change.[182] We see no reason, however, why the greater incentives for cost-effective purchasing introduced by a slightly higher applicant match would be appropriate in the near term but less so in the future; to the contrary, we believe such incentives will remain important over time, whereas changing the discount rate from year-to-year could distort efficient decision making.[183] Finally, because we are only reducing the maximum discount rate by five percentage points, and only for category two services, we make this change fully effective for funding year 2015 rather than phasing it in over multiple years.

### 3. Setting Applicant Budgets

86. In order to provide broader and more equitable support for category two services, we adopt budgets for applicants who apply for category two discounts during the next two funding years, as we continue to evaluate long term program needs. Under this approach, schools in districts that seek category two funding during funding years 2015 or 2016 will be eligible to request E-rate discounts on purchases of up to $150 (pre-discount) per student for category two services over a five-year period. Likewise, library systems and libraries that seek category two funding in funding years 2015 or 2016 may request E-rate discounts on purchases of up to $2.30 (pre-discount) per square foot over a five-year period. If an applicant receives funding for category two services in funding year 2015 or 2016, the five-year budget will apply in the subsequent five funding years, in lieu of the existing "two-in-five" rule.

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[179] *See Healthcare Connect Fund Order*, 27 FCC Rcd at 16717-19, paras. 84, 91.

[180] *See, e.g.*, San Jacinto NPRM Comments at 2; eDimension NPRM Comments at 2; TIES NPRM Comments at 2; Capistrano USD NPRM Comments at 4; SECA PN Comments at 9-10; Wisconsin DPI PN Comments at 3-4; s*ee also E-rate Modernization NPRM*, 28 FCC Rcd at 11337-38, nn.169, 171.

[181] *See, e.g.*, Council PN Comments at 2-3; Hawaii NPRM Reply at 4; LAUSD PN Reply Comments at 6-7. The revised minimum applicant contribution rate we adopt today already is contained in scope in certain respects, among other things because it is limited to the context of category two services for which we adopt the most significant reforms in this Report and Order. The Commission more broadly sought comment in the *E-rate Modernization NPRM* on possible changes to applicant contribution requirements under the E-rate program more generally. *See, e.g., E-rate Modernization NPRM*, 28 FCC Rcd at 11337-39, 11347, 11349, paras. 117-25, 156, 165. As explained above, in addition to adopting the accompanying FNPRM, "[i]n order to ensure the E-rate program evolves to meet the connectivity needs of our nation's schools and libraries, we leave the record open in this proceeding to allow us to address in the future those issues raised in the *E-rate Modernization NPRM* that we do not address today." *Supra* para. 9. While some have advocated reforming applicant contributions' more broadly, we do not resolve those issues at this time, but can do so if warranted based on the pending *E-rate Modernization NPRM* and informed by our experience in this context. *See, e.g.*, *FCC v. Fox Television Stations, Inc*., 556 U.S. 502, 522 (2009) ("Nothing prohibits federal agencies from moving in an incremental manner.").

[182] *See, e.g.*, EdLiNC PN Comments at 12; AASA PN Comments at 5 (endorsing only a temporary change to the highest discount levels).

[183] *See, e.g.*, AASA NPRM Comments at 4; SECA PN Comments at 11.

87. We agree with commenters that E-rate must maintain its historic focus on poverty in distributing support.[184] Therefore, as described above, we will continue to use the discount matrix to calculate applicants' E-rate support on their eligible costs, and applicants that have a higher percentage of students eligible for NSLP will continue to receive a larger proportion of support.[185] For example, over a five-year period, schools or districts at the 80 percent level will be able to request up to $120 in E-rate support per student (an 80 percent discount on $150 in services) and be required to pay 20 percent of the cost of eligible category two services that they purchase. Districts at the 20 percent level will be able to seek up to $30 per student over a five-year period, and be required to pay 80 percent of the costs of the eligible category two services that they purchase. Similarly, a library with 10,000 square feet would be eligible for discounts on purchases of up to $23,000, so a library at the 80 percent discount level could request up to $18,400 in E-rate funding, while a library at the 20 percent discount level could request up to $4,600 over a five-year period.[186]

88. We recognize that this approach represents an important change to our handling of applicant requests, and we are committed to ensuring that the new five-year budgets not in any way compromise the program's fundamental commitments to providing sufficient support and to permitting local flexibility to address localized conditions, even as they expand access to program funds. Therefore we will consider funding years 2015 and 2016 to be a two-year test period, subject to further review by the Commission.

#### a. Methodology

89. It would be impossible to identify, building-by-building, the precise amount of funding each eligible school and library will require in a given year to deploy or upgrade LANs and WLANs necessary to support broadband services within their buildings. As commenters note, building size, construction characteristics, where applicants are in their upgrade cycle, and other factors make each deployment unique.[187] We can, however, establish a multi-year budget for category two services that will serve our goal of ensuring affordable access to high-speed broadband for schools and libraries by ensuring that (a) eligible schools and libraries have greater access to E-rate funding for internal connections necessary to distribute high-speed broadband within their buildings and (b) that category two budgets will be sufficient to ensure that eligible schools and libraries will be able to afford the deployment or upgrade of those internal connections. In setting such a budget, and the related budget-cycle, to fund internal connections, we find support from a broad array of cost data in our record.

90. *Budget Cycle*. As an initial matter, for applicants that receive support in funding years 2015 or 2016, we establish a five-year budget cycle for category two services. The record demonstrates that most category two equipment has a typical lifecycle of approximately five years.[188] After that point,

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[184] *See, e.g.*, AASA PN Comments at 4; Council PN Comments at 5-6; EdLiNC PN Comments at 9; Stoneberger PN Comments at 9.

[185] *See, e.g.*, South Texas PN Comments at 9 (agreeing that decisions should be made giving preference to schools with high levels of socio-economic disadvantaged students).

[186] Consequently, while the budget we adopt during this test period does not vary for particular schools or particular libraries, the E-rate program will provide more support for higher poverty schools and libraries. For purposes of the rules adopted here we are not persuaded that it makes sense to vary the budget based on other considerations, particularly in the absence of evidence quantifying the nature and extent of such variations and enabling us to develop specific, administrable distinctions on those bases.

[187] *See, e.g.*, Council PN Comments at 6; EdLiNC PN Comments at 9.

[188] *See, e.g.*, CoSN PN Comments at 8 (stating that a five year upgrade cycle is consistent with what many school districts use); EdSuperHighway NPRM Comments at 13 (stating that LAN and Wi-Fi networks have a five to seven year upgrade timeline); Intelagent PN Comments at 3 (agreeing that a five-year equipment replacement cycle is "warranted and acceptable"); Gray Salada PN Comments at 1 (saying that a seven year lifecycle is appropriate because recent equipment is "capable and robust"); SECA PN Comments at 14 (stating that "five years is

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schools and libraries likely will need additional support to upgrade their networks. This five-year budget cycle will give applicants the flexibility to determine when to make upgrades or changes.

91. *School Budget*. We set a pre-discount budget of $150 per student over five years for schools. The record demonstrates that $2,500 per classroom, which is equal to just under $150 per student based on a ratio of 17 students per classroom, should be a sufficient budget to deploy LANs/WLANs to elementary and secondary school classrooms and common areas across the nation.[189] States and districts submitted into our record specific cost data for recent upgrades to state-of-the-art deployments that were largely under this per-classroom amount.[190] Likewise, participants at the E-rate Modernization Workshop described spending differing amounts per classroom below this $2,500 range, from $1,300 to an average of $1,900 per classroom.[191] North Carolina, which is in the middle of a statewide upgrade to Wi-Fi in its schools and libraries, originally estimated the upgrade cost at $2,200 per classroom, and has found actual deployment costs below this initial estimate, ranging from approximately $2,100 per classroom for a comprehensive high school upgrade to $900 per classroom for a more limited high school upgrade.[192] In some parts of Mississippi, the $500 cost per classroom is well below this budget.[193]

92. Based on NCES data for average class sizes and other sources, commenters estimate that there are 18 to 20 students per classroom in the United States, an estimate supported by consultations with district technology officials and equipment vendors.[194] Data in the record from a sample of states and

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commensurate with the industry-wide standard”). *See also* Letter from Charles Eberle, Attorney-Advisor, Telecommunication Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed May 21, 2014) (Friday Institute Ex Parte) (describing lifecycles for switches and cabling).

[189] *See infra* para. 92.

[190] *See, e.g.*, Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at Attach. (filed May 21, 2014) (Emer Ex Parte); *see also* Letter from Ross Randall, Director of Technology, Lamar County School District, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed May 12, 2014) (Mississippi Technology Coordinators Ex Parte).

[191] *See* Letter from Michael J. Jacobs, Legal Advisor to the Chief, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attachment at 36, 38 (filed May 14, 2014) (E-rate Workshop Ex Parte) (describing costs for the Hampton Town School District, Pennsylvania, to be $1,300 and for Arlington Heights, Illinois, to average $1,900, though estimating the costs would likely increase to $2,500 to $3,000 if starting from scratch).

[192] Emer Ex Parte at Attach.

[193] Mississippi Technology Coordinators Ex Parte at 1-2. To the extent that particular schools and libraries can make upgrades for less than the amount of the budget, other reforms adopted in this Report and Order help ensure that they have the incentive and ability to do so. *See, e.g., supra* section IV.B.2 (applicant contribution); *see infra* section V (maximizing cost-effectiveness).

[194] The ESH/CoSN Ongoing Cost Model assumes 2,500,000 classrooms in the United States. *See* EdSuperHighway Ongoing Cost Model, http://www.fcc.gov/wcb/LAN_Wi-Fi_Ongoing_Cost_Model.xlsx (Totals and Aggregation tab, cell B44) (EdSuperHighway/CoSN Ongoing Cost Model); Letter from Evan Marwell, CEO, EdSuperHighway, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 8 (filed May 28, 2014) (EdSuperHighway/CoSN OngoingCost Model) (describing classroom count and consultation process with district technology officials and equipment vendors). We derived an average student per classroom figure by dividing the total number of public school students reported in 2011-2012 NCES data (49,521,669) by ESH/CoSN’s estimated classroom count, for a figure of 19.8 students per classroom. U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990-91 through 2011-12; and State Public Elementary and Secondary Enrollment Projection Model, 1980 through 2023, http://nces.ed.gov/programs/digest/d13/tables/dt13_203.20.asp

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districts suggests that the true number is slightly lower, however. In particular, statewide data from three states representing almost five million students (approximately 10 percent of all students in the country) give an average of 17.8 students per classroom, likely because not all classrooms are in use at all times of the day.[195] Several individual districts also submitted classroom counts, both rural and urban, with an average of 19.6 students per classroom.[196] Combined, the state and district data provide information on schools serving over 5.6 million students, with an average of 18 students per classroom. We believe it makes sense to use a relatively conservative estimate to ensure support levels are sufficient for schools with smaller class sizes, such as smaller rural schools. Accordingly, in translating the various per-classroom cost estimates in our record into per-student costs (and vice-versa), we use an estimate of 17 students per classroom.[197] Dividing $2,500 by 17 gives a per-student budget of $147, which we round up to $150 for simplicity of administration.

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(U. S. Dept. of Ed Survey and State Public Elementary and Secondary Enrollment Projection Model) (total Fall 2011 public school student count of 49,521,669) (last visited July 10, 2014). The Cisco Model estimates the total number of classrooms in the country as 2,679,121, which they state they derived from NCES 2006-2007 data. *See* Letter from Jeffrey A. Campbell, Vice President, Government Affairs, Cisco, to Jon Wilkins, Managing Director, Federal Communications Commission, WC Docket No. 13-184 (filed May 30, 2014) (Cisco Model). We derived an average student per classroom figure by dividing the total number of students reported in 2006-2007 NCES data by Cisco's estimated classroom count, for a figure of 18.3 students per classroom. *See* U. S. Dept. of Ed Survey and State Public Elementary and Secondary Enrollment Projection Model (total Fall 2006 public school student count of 49,315,842). NCES reports that the average class size for teachers in public elementary and secondary schools is 21.2 (elementary) and 26.8 (secondary). *See* U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Data File," 2011-12, http://nces.ed.gov/programs/digest/d13/tables/dt13_209.30.asp (last visited June 26, 2014) (U. S. Dept. of Ed. Public Teacher Data File). The EdSuperHighway/CoSN Ongoing Cost Model was placed in the record on June 16, 2014. *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed June 16, 2014) (June 16, 2014 Requested Data Ex Parte) (listing submissions that have been added to the E-rate Modernization Data Page because their document formats were not compatible with the Commission's Electronic Comment Filing System).

[195] We obtained state student per classroom values by dividing the most recent total enrollment figures available for each state (Fall 2011) by the number of classrooms reported by each state. *See* Letter from Charles Eberle, Attorney-Advisor, TAPD, FCC, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed June 16, 2014) (Additional Data Sources Ex Parte) (classrooms of four states and five school districts); U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990-91 through 2011-12; and State Public Elementary and Secondary Enrollment Projection Model, 1980 through 2023, http://nces.ed.gov/programs/digest/d13/tables/dt13_203.20.asp (last visited July 10, 2014).

[196] We obtained district student per classroom values by dividing the most recent total enrollment figures available for each district (Fall 2011) by the number of classrooms reported by each district. *See* Additional Data Sources Ex Parte, at 2 (classrooms of four states and five school districts); Los Angeles USD Network Equipment Pricing, http://www.fcc.gov/wcb/LAUSD_Pricing.xlsx (last visited July 10, 2014) (total classrooms in the Los Angeles USD obtained by summing column D ("Classrooms") of the "All School Info" tab); National Center for Education Statistics, Search for Public School Districts, http://nces.ed.gov/ccd/districtsearch/ (last visited July 10, 2014) (providing student counts as of Fall 2011 for each district).

[197] We note that this is slightly higher than the national average pupil to teacher ratio published by NCES. *See* U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey", 2011-12 v.1a., http://nces.ed.gov/pubs2013/2013441/tables/table_02.asp (last visited July 10, 2014). The pupil to teacher ratio may more accurately indicate the number of classrooms in a school because there are instructional spaces used by teachers that are not classrooms (*e.g.*, computer labs, art rooms). NCES reports that the average class size for teachers in public elementary and secondary schools is 21.2 (elementary) and 26.8 (secondary). *See* U. S. Dept. of Ed. Public Teacher Data File.

93. A pre-discount budget of $150 per student over five funding years, or $30 per student annually, is also consistent with the market rate for elementary and secondary school managed Wi-Fi solutions, described below. Because these costs include installation and maintenance, we find them to be a strong, market-driven representation of all-inclusive, per-student LAN/WLAN deployment costs. For example, Education Networks of America (ENA) currently provides managed Wi-Fi to 82 percent of public and charter high schools in Idaho for $21 per student and teacher per year, including installation, management, maintenance, and content filtering.[198] C-Spire Fiber has several deployments in Mississippi that average an annual cost of $19 to $29 per student for the managed Wi-Fi product it is piloting.[199] In Ohio, several Information Technology Centers offer a managed Wi-Fi service to member school districts for $9-15 per student per year plus vendor installation charges.[200]

94. Commenters also submitted three different Wi-Fi cost models into our record: the EdSuperHighway/CoSN ConnectED Cost Model,[201] the EdSuperHighway/CoSN Ongoing Cost Model,[202] and the Cisco Model.[203] The first of these, the EdSuperHighway/CoSN ConnectED Cost Model, produces the lowest estimate of required costs, producing a nationwide, average cost of approximately $21 per student per year, well below the budget we set here.[204] This model assumes substantial existing infrastructure however, the extent of which will vary greatly between districts, so it is poorly suited to setting reasonable, nationwide budgets that will be sustainable on an ongoing basis.[205] We thus do not rely on this model.

95. The remaining models confirm our conclusion based on the record evidence discussed above that a pre-discount $150 per student five-year budget we adopt here is reasonable. In contrast to

[198] *See* Letter from John Windhausen, Jr., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed May 6, 2014) (ENA Ex Parte).

[199] *See* Letter from Jeffrey A. Mitchell, Counsel for Telepak Networks, Inc. d/b/a C Spire Fiber, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed May 21, 2014); Letter from Jeffrey A. Mitchell, Counsel for Telepak Networks, Inc. d/b/a C Spire Fiber, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 5 (filed June 12, 2014).

[200] *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed Feb. 25, 2014) (describing a call regarding Ohio Information Technology Centers).

[201] *See* EdSuperHighway ConnectED Cost Model, http://www.fcc.gov/wcb/LAN_Wi-Fi_ConnectED_Cost_Model.xlsx. This model was placed in the record on June 16, 2014. *See* June 16, 2014 Requested Data Ex Parte at 2.

[202] *See* EdSuperHighway/CoSN Ongoing Cost Model.

[203] *See id.*; Cisco Model.

[204] *See* EdSuperHighway/CoSN ConnectED Cost Model (estimating $2,875,642,700 in E-rate subsidy (Base Case Totals tab, cell N46) at an assumed base discount of 70 percent (Base Case Totals tab, cell J3), which implies a pre-discount requirement of $4.1 billion needed for LAN/WLAN deployment. The EdSuperHighway/CoSN ConnectED Cost Model was designed with the intent of identifying the funding required to meet the ConnectED five-year goals, which were established in June 2013. *See* Letter from Evan Marwell, CEO, EducationSuperHighway, to Marlene Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 , Attach. at 3 (filed Apr. 10, 2014) (including a report entitled Connecting America's Students: Opportunities for Action, which notes the June 2013 establishment of the ConnectED five-year goals and which the included the EdSuperHighway/CoSN ConnectED Cost Model in its analysis). $4.1 billion divided by four years remaining to achieve the ConnectED five-year goals, divided by the approximately 50 million public school students in the U.S., is approximately $21 per student).

[205] *See* EdSuperHighway/CoSN ConnectED Cost Model (Base Case Totals tab, Column L, showing "% [of classrooms] Requiring Upgrades" at less than 60% for all categories of equipment),

the EdSuperHighway/CoSN ConnectED Cost Model, the EdSuperHighway/CoSN Ongoing Cost Model and the Cisco Model each attempt to estimate the full, ongoing costs of internal connections deployments, averaged over the lifecycle of the equipment used. Both models consist of two basic components: an overall framework for estimating costs and a set of inputs for various costs and equipment lifecycles. Although they differ somewhat, the frameworks of both models appear to provide generally reasonable approaches to estimating Wi-Fi deployment costs. With respect to the inputs, Appendix C provides the staff's comparison of the approaches, and a summary of the most significant input values in each model, along with ranges supported in our record for each of these inputs. As illustrated in the first two columns of Appendix C, the deployment and maintenance cost estimates generated by the EdSuperHighway/CoSN Ongoing Cost Model and the Cisco Model differ, with EdSuperHighway/CoSN estimating an annual average cost of $869 per classroom, or $44 per student, and Cisco estimating an annual average of $1,081 per classroom, or $59 per student.[206] The staff's sensitivity analysis of the key cost drivers, however, shows that the range of reasonable cost estimates that can be produced by the basic model frameworks is quite a bit wider than shown by these two data points. Specifically, with plausible changes to a small number of inputs, the models could support annual cost estimates ranging from approximately $22 all the way to $75 per student. The $150 per student five-year budget we adopt here falls comfortably within this range, albeit toward the lower end. The EdSuperHighway/CoSN Ongoing Cost Model and the Cisco Model thus help confirm the conclusions we draw from the diverse data on real world deployment costs and the market-driven costs of managed Wi-Fi services, and, based on these data sets, we are comfortable choosing an estimate toward the lower end of the range produced by the models.

96. In sum, the record suggests $150 per student is a reasonable budget, with many schools able to complete Wi-Fi deployments or upgrades for less than that amount. Some schools may still choose to spend more than $150 per student on their wireless deployments based on individual design decisions, and nothing in the approach we adopt prevents these decisions. Because the evidence shows that $150 per student has proven sufficient in numerous deployments over several geographic areas, however, we limit E-rate discounts to this budget.

97. In finding that $150 per student over five years should provide sufficient support for category two services, we acknowledge that some cost variation exists across or even within LAN or Wi-Fi networks. For example, different building construction materials and variations in labor costs can affect upgrade costs.[207] However, in contrast to some other costs, such as the costs of digging trenches for fiber deployment, the majority of the costs of LAN and Wi-Fi networks are commodity equipment costs, and therefore cost variation for efficient upgrades is far less than that for connectivity to schools and libraries. For the same reason, schools' costs for LAN or Wi-Fi networks generally should scale linearly by the number of classrooms (and therefore the number of students).[208] We therefore conclude that a per-student system of setting budgets for category two funding (combined with a poverty-based discount rate and subject to the funding floor, as discussed below) reasonably suits the manner in which category two costs are incurred.

98. *Library Budget.* We set a pre-discount budget of $2.30 per square foot over five years for libraries. Square footage provides a simple to calculate, predictable, and reasonably accurate method of setting budgets.[209] Some commenters suggest that we should use patron counts, average daily users, peak

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[206] *See* Appendix C.

[207] *See, e.g.*, Council PN Comments at 6; EdLiNC PN Comments at 9.

[208] *See, e.g.*, ACA PN Reply Comments at 5 (stating that these costs are "relatively easy to determine and tend to be more predictable"); HP PN Comments at 7 (agreeing that costs generally scale by student population); Jive PN Comments at 5 (stating that it is correct that prices for LAN and Wi-Fi deployments do not vary widely and should scale by number of students).

[209] *See* ENA Ex Parte at 1 (public libraries typically calculate needs based on square footage).

hour users, or other metrics to help set reasonable internal connections budgets for libraries.[210] We decline to adopt any of these other suggested metrics at this time because (a) we have identified no available sources of data on these metrics for all libraries, and (b) patron count, average daily users, and peak hour users may vary dramatically and could be difficult to measure. As a result, using these metrics at this time could reduce predictability, complicate the application process, and slow down application reviews.[211]

99. We choose $2.30 per square foot over five years as the budget amount based on three data sets in our record. First, Vermont libraries submitted state data showing the average equipment cost for deploying wireless networks in 35 libraries in the state to be approximately $0.81 per square foot.[212] Second, the Urban Libraries Counsel (ULC) urged the adoption of a budget of $4 per square foot for libraries,[213] which was supported by a number of libraries.[214] Finally, the ALA filed an analysis reporting per square foot costs for a variety of libraries in the range of $1.79 to $2.29, which focused more specifically on E-rate eligible costs.[215]

100. Considering the range of all the cost data in the record and recognizing that the $2.30 budget is a cap, not a grant, we find that ALA's recommendation of $2.30 per square foot, taken with the $9,200 funding floor over five years as set below, is a reasonable budget level. The ALA recommendation is based on a more thorough analysis and specifically limited to E-rate eligible costs. While we note that a number of libraries supported the ULC proposal, in general these commenters did not provide sufficiently detailed data for the Commission to ensure that the estimates included only E-rate

[210] *See, e.g.*, ALA NPRM Comments at 19 (noting range of building size from a few hundred feet to tens of thousands); E-Rate Central NPRM Reply Comments at 5; SECA PN Comments at 20 (asking how patrons would be counted); ULC PN Reply Comments at ii-iii (seeking a survey of average and peak users).

[211] *See* Letter from Marijke Visser, Assistant Director, Office of Information Technology Policy, American Library Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed July 7, 2014) (ALA Formula Ex Parte) (supporting a square footage metric with a floor as having distinct benefits because (1) libraries already submit this data to IMLS, (2) it is readily normalized across libraries, and (3) a user model could lead to unnecessary delays during the administrative review process); *see also* Letter from Larry P. Neal, President, Public Library Association, to Chairman Wheeler et al., Federal Communications Commission, WC Docket No. 13-184 (filed July 7, 2014) (supporting the formula as reflecting the needs of public libraries of all sizes).

[212] We calculated this using the total floor area and the total cost of equipment of all 35 libraries. *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed June 16, 2014) (Vermont Library Data Page Ex Parte) (at spreadsheet entitled "Vermont Library Network Equipment Costs").

[213] *See* Letter from John M. Beahn, Counsel to Urban Libraries Council, to Marlene Dortch, Secretary, FCC, WC Docket No. 13-184 (filed July 7. 2014). The ULC suggested an alternative budget of $150 per average daily visitor. *Id.* We decline to adopt this recommendation for the reasons set forth in para. 96.

[214] *See, e.g.*, Letter from Jon Worona, Manager of Technology and Innovation, San Jose Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 3, 2014); Letter from Jim Loter, Director, Information Technology, Seattle Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 1, 2014), Letter from Sam Rubin, Special Assistant to the President, New York Public Library, to Jonathan Chambers, Chief, Office of Strategic Planning and Policy Analysis, FCC, WC Docket No. 13-184 (filed July 9, 2014) (proposed internal connection upgrades for Bronx Library Center (BLC) and the Mid-Manhattan Library (MML) average $4 per square foot).

[215] *See* Letter from Marijke Visser, Assistant Director, Office of Information Technology Policy, American Library Association, to Chairman Wheeler et al., WC Docket No. 13-184 at 1 (filed July 7, 2014) (ALA Budget Recommendation Ex Parte).

eligible services.[216] Further, four ULC member libraries that did provide more specific cost data in response to requests from Commission staff indicate a range of $0.82 to $3.08 per square foot.[217] Even so, we consider ULC's data in evaluating all the cost data in the record and selecting the $2.30 per square foot funding budget.

101. Finally, we note that nationwide, schools have a median of approximately 150-175 square feet per student.[218] The $150 per student budget we adopt therefore equals about $0.86 to $1.00 per square foot for schools. The budget we select for libraries today is substantially above this amount. Therefore, we believe that $2.30 represents a generous figure that will not unnecessarily restrict library funding. Since our record suggests that usage density is unlikely to be substantially higher in libraries than it is in schools,[219] the school costs in our record provide additional support for our finding that ALA's proposed $2.30 per square foot funding budget will provide sufficient support for library deployments.

102. Notwithstanding this analysis, we recognize that the library data are less robust than that for schools. Accordingly, in the accompanying Further Notice we seek additional comment on these issues.

103. *Funding Floor.* To ensure the category two budgets we set are sufficient to meet the minimum demand that certain schools and libraries might have regardless of size, we also establish a pre-discount funding floor of $9,200 in category two support available for each school or library. While WLAN costs tend to scale by classroom size, schools and libraries will need the baseline funding to

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[216] *See, e.g.*, Letter from Barbara A.B. Gubbin, Director, Jacksonville Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 7, 2014); Letter from Michael K. Bollinger, Director, Information Technology, Kansas City Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 7, 2014).; Letter from Ramiro Salazar, Director, San Antonio Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 7, 2014); Letter from Melinda S. Cervantes, Executive Director, Pima County Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 7, 2014) (estimates were for "delivering access to digital information"); Letter from Gary Wasdin, Executive Director, Omaha Public Library, to Chairman Wheeler et al., WC Docket No. 13-184 (filed July 7, 2014) (estimate to "provide internet service").

[217] *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach. (filed July 8, 2014) (showing equipment cost for recent Cuyahoga County (OH) Public Library building projects of $1.01, $0.82, and $1.07); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, (filed July 10, 2014) (budget for upgrading Chattanooga Public Library main library of $1.79 per square foot; recent branch library WLAN upgrade at approximately $2 per square foot); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184,. (filed July 8, 2014) (Boston Public Library WLAN upgrades in 2011-2012 cost approximately $1.69 per square foot); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed July 8, 2014) (WLAN upgrades for Richland County main library and ten branch locations budgeted at $3.08 per square foot).

[218] *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed June 19, 2014) (June 19, 2014 Requested Data Ex Parte) (linking to 19th Annual School Construction Report, SCHOOL PLANNING & MANAGEMENT, February 2014, at 21, Table 5) (showing that new school construction has a median floor are per student of 149.6 square feet per elementary school student, 173.3 square feet per middle school student, and 174.2 square feet per high school student).

[219] *See* Cisco White Paper at 8, 31.

purchase a router and/or switch, at least one small wireless access point, and cabling necessary to deploy WLANs in even the smallest buildings.[220] Our record is not, however, as well developed on this point as we would like, and so we take the conservative approach of adopting ALA's recommended floor of $9,200, based on ALA's consultation with its library members.[221] Our record indicates that $9,200 should be sufficient to cover the costs to purchase necessary equipment, cabling, and installation for these libraries.[222] We set the floor for schools at the same level to ensure equity and because the costs of deployment in small schools and libraries should be similar.[223] Increasing the floor by this amount has a minimal budget impact. Therefore, all schools and libraries, including smaller schools and libraries, will be eligible to request pre-discounted support for up to at least $9,200 for category two services over any given five-year period.[224]

104. *Per-Entity Basis.* Applicants will be required to seek support for category two services on a school-by-school and library-by-library basis, although school districts will use a single district-wide discount rate for all of their schools, as will library systems for all of their libraries. Under this approach, school districts, whether public or made up of more than one independent school under central control,[225] will have the flexibility to request support for any school or group of its schools each funding year, using the number of students in any school getting LAN/WLAN upgrades to determine the maximum eligible pre-discount amount in a given funding year for that school.[226] This flexibility will allow districts to decide how to sequence deployment of LANs/WLANs based on their individual needs.[227] For example, a large district may choose to upgrade one fifth of its schools in each of the five funding years, while a small district may request support to upgrade all of its schools in one funding year. To the extent that a district seeks or receives funding commitments for less than the category two budget for E-rate support

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220 *See, e.g.*, Vermont Library Data Page Ex Parte. The spreadsheet entitled "Vermont Library Network Equipment Costs" provides detailed internal connection purchases for the Vermont libraries that included a router, switch, and wireless access point needed for all libraries.

221 *See* ALA Budget Recommendation Ex Parte at 2.

222 *See, e.g.*, Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach.: "Vermont WLAN Upgrade Budget" (filed May 21, 2014) (Vermont Library Ex Parte) (setting a $4,900 budget for the cost of routers, wireless access points, switches, and equipment for each library in Vermont, but excluding cabling). We note that EdSuperHighway recommended a budget floor of $14,000 for schools of 100 students or less, based on a modeled deployment cost of $13,800 for a typical 100 student school. *See* Letter from Evan Marwell, CEO, EdSuperHighway, to Marlene Dortch, Secretary, Federal Communications Commission, WC Docket No 13-184 at 1 Attach (filed July 9, 2014). Our per student budget of $150, which would provide a budget of $15,000 for a 100 student school, is sufficient to accommodate this model. The EdSuperHighway filing does not, however, provide information on the costs for even smaller schools, which is the relevant question here.

223 *See supra* para. 97.

224 *See, e.g.*, AASA NPRM Comments at 4 (stating that per-student caps can shortchange small schools); ALA PN Comments at 22 (seeking a threshold for smaller libraries).

225 *See infra* section VI.B.1. ("Independent charter schools, private schools, and other eligible educational facilities that have more than one school building should factor all students in facilities under the control of the central administrative agency into the discount calculation.").

226 For example, a small district with 2,000 students and 10 schools may request all of its funding in the first year, up to its discounted portion of $300,000. On the other hand, a large metropolitan district with 100,000 students and 200 schools may request support for 40 schools each year for five years, calculating the number of students in each of the 40 schools to determine the eligible pre-discount total per school each funding year.

227 *See, e.g.*, Chicago PN Comments at 2 (requiring flexibility and phasing of work across multiple funding years); Knox County PN Reply Comments at 8 ("district cannot afford nor manage to address all facilities in the same funding cycle"); Wisconsin DPI PN Comments at 5 (asking for three years to use available support).

available to a school, it may request additional category two E-rate support up to that budget in the following four funding years.[228] The costs for services shared by multiple entities shall be divided between the entities for which support is sought in that funding year.[229] Likewise, library systems that include multiple libraries will have the flexibility to request support for all or a portion of their library branches each year, using the floor area of the libraries being updated to determine the maximum budget available each year.

105. Similarly, eligible schools that operate independently of a public school district, such as a private or charter school, are eligible for E-rate discounts on the purchase of eligible internal connections services up to $150 per student (or a minimum of $9,200). If an independently operated school seeks or receives less than the maximum amount of internal connections E-rate support available to that school in year one, it may request additional internal connections E-rate support up to that maximum in the following four funding years. Likewise, libraries that are not part of a library system may request E-rate support for a pre-discount purchase of up to the greater of $9,200 or $2.30 per square foot, and any amount less than that will be available in the following four funding years. For example, a 10,000 square foot library may request support for a purchase of up to $23,000 over five years. If it seeks E-rate support for a purchase of $13,000 in the first funding year, it may request discounted support for another $10,000 in eligible services over the next four years.

106. *Application of Budgets to Funding Years 2015 and 2016 and Five-Year Funding Cycle.* The question of applicant budgets is closely linked to the question of the long-term funding levels for category two services. As described above, at this time we set funding for category two as a budget target rather than a firm allocation. In light of the funding identified by the Bureau earlier this year, we are confident we can meet this target for the next two funding years, and therefore we apply the budget approach adopted here to those two funding years. We will evaluate the longer-term application of this approach in conjunction with our evaluation of the overall, longer-term program needs.

107. While the budget approach will only apply to applicants that receive funding in funding years 2015 and 2016, we clarify that the budget themselves are five-year budgets. In other words, for schools in districts seeking funding in years 2015 and 2016, we adopt a rolling funding cycle of five years for category two services and remove the two-in-five rule that applied to priority two internal connections.[230] As explained above, Wi-Fi equipment has a lifecycle of approximately five years.[231] Therefore, excluding any priority two support received before funding year 2015, schools in districts that seek category two support in funding years 2015 or 2016 will calculate their available support budget as $150 per student, multiplied by their discount, less any E-rate support received in the prior four years. In

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[228] A district may calculate the amount of E-rate support available to a particular school in a given funding year based on the following formula. E-rate support available = [(number of students at the time of the discount level calculation) x ($150) x (discount level) - (E-rate funding received in prior four funding years)]. An 80 percent discount school with 1,000 students that purchased all of the internal connections equipment in one funding year for $60,000 would therefore use the following formula: (1,000 x $150 x 0.80) = $120,000 – $60,000 = $60,000 in E-rate support available to request in the next funding year if necessary.

[229] *See* 47 C.F.R. § 54.502 as amended herein. We note that discounts are generally not available for non-instructional facilities (NIFs) or administrative buildings of a library. Shared costs for deploying internal connections to ineligible NIFs – such as the shared cost of a central switch that routes traffic to both schools and NIFs – must be cost allocated. If category two services "are essential for the effective transport of information to or within one of more instructional buildings of a school or non-administrative building of a library or the Commission has found that the use of those services meets the definition of educational purpose," the services are eligible for E-rate support notwithstanding that they are located within a NIF. For example, the costs of a central switch that is located within a NIF, but routes traffic only to instructional facilities, would be eligible for support.

[230] *See* 47 C.F.R. § 54.502(a)(4)(iii) (providing that schools and libraries shall be eligible for internal connections support no more than twice every five years).

[231] *See supra* para. 90.

the first funding year that an applicant requests category two support, the full amount of the pre-discount $150 per student budget will be available to request. In later years, applicants will calculate the available budget based of $150 per student less any support received in the prior four funding years. Applicants that receive support in funding year 2015 will have $150 per student available divided over funding years 2016, 2017, 2018, and 2019. Applicants that receive support in funding year 2016, but not in funding year 2015, will have a budget of $150 per student divided over funding years 2017, 2018, 2019, and 2020. Likewise, libraries in library systems that receive support in funding years 2015 or 2016 will calculate support over the five-year funding cycle using the number of square feet less any support received in the prior four funding years. This approach will allow schools and libraries to plan for how best to upgrade their facilities, and plan for future upgrades based on their own prior spending. In contrast, adopting a shorter budget, such as a two-year budget, would create a mismatch between the budget cycle and real equipment lifecycles, and would likely encourage applicants to inefficiently front-load expenses in the next two years.

#### b. Reasons for a Multi-Year Budget Approach

108. Our decision to limit applicants' total category two requests based on a five-year budget reflects broad consensus in the record that some reasonable limits on requests are necessary to spread support more broadly than under the current system.[232] In the *E-rate Modernization Public Notice*, the Bureau outlined three options for such limits, and invited comments on alternatives.[233] The five-year budget that we adopt here is a middle course between two of these options – an annual per-student allocation and a one-in-five rotating funding schedule.[234] After carefully evaluating the arguments for these and other options, we conclude that the approach we adopt today will bring several important benefits to applicants and the program.[235]

109. First, the approach we take to distribute category two funding provides greater predictability. Since funding year 1999, applicants have had no certainty from year-to-year that category two services would be supported.[236] As such, administrators, budget managers, and technology planners

[232] *See, e.g.*, CETF PN Comments at 11; C-Spire Fiber NPRM Reply Comments at 4; EdCo PN Comments at 3; EPS PN Comments at 13; E-Rate Reform NPRM Reply Comments at 5; FFL PN Comments at 1; Illinois CMS PN Comments at 8; KDLA PN Comments at 2; SECA PN Comments at 17; Weslaco ISD PN Comments at 4-5.

[233] *See, e.g.*, ALA PN Comments at 19-22 (supporting a rotating model with some adjustments); EdLiNC PN Comments at 5 (arguing that a limit will either be too high or too low for most schools); E-Rate Central PN Reply Comments at 4-6 (outlining concerns with all approaches, but determining overall that an annual allocation is more predictable); NAESP PN Comments at 6 (opposing a structural overhaul as impeding efforts to connect classrooms and libraries at this time and arguing a one-in-five rule would exacerbate the two-in-five problems); NEA PN Comments at 4-5 (siphoning funds for internal connections undermines program); MMTC PN Comments at 3-5 (arguing that none of the Public Notice proposals would accomplish the goals); SECA PN Comments at 13-22 (acknowledging that all options have benefits and drawbacks, even their initial suggestion for rotating support); Steven Kaplan PN Comments at 5 (stating that too low of a limit may be inadequate for the majority of applicants); Valerie Oliver PN Comments at 4 (encouraging a mixture of lowering the discount level and rotating support).

[234] *See E-rate Modernization Public Notice*, 29 FCC Rcd at 2179, paras. 14-19.

[235] According to a survey by the Consortium on School Networking, 57 percent of responding school districts believe they have insufficient Wi-Fi capacity for one-to-one digital learning. *See* CoSN NPRM Reply Comments at 3. *See also, e.g.*, KDLA PN Reply Comments at 1 (citing the ALA Public Funding & Library Technology Access Survey that 74.4 percent of Kentucky libraries offer the only no-fee computer and internet access in their communities); KDLA PN Comments at 4 (seeing "skyrocketing demands on their wireless networks"); The Quilt PN Comments at 3 (stating that even when schools have access to fiber, they lack access to internal wiring necessary to reach students). *See also, e.g.*, EdSuperHighway PN Reply Comments at 13; Cox PN Comments at 9-10; Jive PN Comments at 4-5; SDDOE PN Comments at 5.

[236] *See* USAC, Schools and Libraries, Search Commitments, http://www.usac.org/sl/tools/commitments-search/default.aspx (excluding funding year 2010, funding year 1999 was the last year that applicants below the 70 percent discount level received support for internal connections).

have been discouraged from planning for E-rate support for Wi-Fi in their schools and libraries because annual funding was far from assured.[237] Some commenters express concern regarding the predictability of other approaches, such as a rotating approach[238] or a one-in-five approach.[239] On the other hand, some commenters support an allocation approach in order to provide needed certainty.[240] Unlike in previous years, when there was no funding for internal connections, or funding went to connect a small percentage of the nation's students and library patrons, the approach we adopt today provides greater predictability and will be able to provide support for 10 million students and thousands of libraries each year.

110. Second, the approach we adopt today maintains the E-rate program's priority for the highest poverty schools and libraries.[241] We continue to use poverty measures when distributing support under this approach. Applicants with the highest percentage of students eligible for free and reduced lunch will receive a greater proportion of E-rate support and be eligible earlier in the five-year cycle if demand exceeds the annual budget for category two services.

111. At the same time, this approach guarantees a broader distribution of funding for internal connections – adjusted as appropriate to reflect greatest levels of poverty – by setting reasonable limits on category two requests in order to deploy Wi-Fi networks to a far greater number of eligible applicants. Many applicants debate the costs and benefits of different distribution approaches, but focus on a core principle that distribution must be made more equitable.[242] As we noted earlier, the existing priority two methodology has resulted in E-rate funding for priority two services being distributed only to schools and libraries with the highest discount levels.[243] Additionally, a disproportionate amount of available funding has gone to urban schools.[244] Commenters point out that some proposals, like a one-in-five limitation, would not help to achieve a more equitable distribution of support.[245] Similarly, an increase in the cap without these additional measures to encourage efficient purchasing would not achieve more equitable distribution.[246] This five-year budget approach should provide sufficient support per student or per square foot for far more schools and libraries to access needed funding, but places a limit on less cost-efficient spending requests.

112. Importantly, this approach to funding category two connectivity also provides flexibility to districts, schools, and libraries to deploy and maintain Wi-Fi as best suits their own circumstances.

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[237] *See, e.g.*, ALA PN Comments at 11; EdLiNC NPRM Comments at 14; SECA PN Comments at 19; Wisconsin DPI PN Comments at 3.

[238] *See, e.g.*, California DOE PN Comments at 3-4 (liking rotating in concept, but finding it unpredictable); Chicago PN Comments at 2-3 (rotating eligibility would be ideal, but it is unlikely to provide any additional certainty).

[239] *See* Letter from John D. Harrington, CEO, Funds for Learning, LLC, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed Apr. 7, 2014) (stating that a one-in-five approach would be very uncertain and would be difficult to plan effectively).

[240] *See, e.g.*, Illinois CMS PN Comments at 8 (stating an allocation that provides some certainty represents the best approach); EdCo PN Comments at 3 (noting this could assist with budget planning, which have challenges under the two-in-five rule); KDLA PN Comments at 3 (saying this will provide convenience for budgeting).

[241] *See supra* section IV.B.1.

[242] *See, e.g.*, SECA PN Comments at 13-14 (noting that all approaches have issues, but believing that applicants must be able to obtain sufficient support at all discount levels); SDDOE PN Comments at 5 (explaining positive and negative attributes of different approaches and emphasizing need to improve chances that all applicants get funding periodically).

[243] *See supra* para. 64.

[244] *Id.*

[245] *See, e.g.*, NAESP PN Comments at 6 (arguing a one-in-five rule would exacerbate the two-in-five problems).

[246] *See, e.g.*, EdLiNC NPRM Comments at 10-11; AASA NPRM Comments at2; CoSN PN Comments at 9.

Many commenters argue that flexibility is essential for setting reasonable budgets each year,[247] and this five-year budget approach allows applicants to decide the rate at which school networkss are updated. This approach allows applicants to plan how to deploy their networks over five years, whether by requesting support for all or just a portion of entities each year, or by purchasing a managed Wi-Fi service through which a third party provider installs and manages the necessary LAN and WLAN.[248]

113. Finally, the approach we take today promotes cost-effective purchasing by applicants while providing support that the record demonstrates should be sufficient to support these badly needed deployments.[249] In the past, applicants at the top discount levels had an incentive to overbuy or use less cost-effective network design.[250] A limit on category two support will encourage more cost-efficient purchasing.

114. In contrast to the approach we adopt here, we find the alternative approaches that commenters suggest, as well as those outlined by the Bureau in the *E-rate Modernization Public Notice*, such as maintaining the existing system but temporarily eliminating support for applicants that have recently received support,[251] a rotating schedule of funding for different discount bands,[252] or single-year budgets, implemented with or without the existing discount matrix,[253] would each be less effective at solving the structural problems with how the E-rate program has historically funded internal connections. For instance, as pointed out by commenters, both the rotating eligibility approach and the one-in-five approach outlined by the Bureau in the *E-rate Modernization Public Notice* lack certainty for schools and libraries absent incentives for more cost-efficient purchasing in the highest discount bands, and would likely fail to distribute support more broadly than is the case today.[254] In contrast, providing applicants

[247] *See, e.g.*, EdCo PN Comments at 2; HP PN Comments at 2-3; Wisconsin DPI PN Comments at 5; Chicago PN Comments at 2; KDLA PN Comments at 2.

[248] *See, e.g.*, The Quilt PN Comments at 4; Verizon PN Comments at 5; WVDE PN Comments at 6.

[249] *See, e.g.*, iNACOL PN Comments at 5 (stating that limited funds will encourage good stewardship); South Texas PN Comments at 9 (agreeing that an allocation would shift the focus on cost-efficient purchasing, rather than over-purchasing).

[250] *See, e.g.*, Amplify NPRM Reply Comments at 6 (explaining that priorities encourage schools to focus on priority one services that they do not need); Cisco NPRM Comments at 7-8 (stating that changes are needed to prevent inefficient incentive to purchase more Internet access rather than more cost-effective internal network equipment); Cox NPRM Reply Comments at 9-10 (stating that priority system can create uneconomic incentives to purchase more expensive services rather than less expensive Wi-Fi networks to achieve the same result); EdLiNC PN Comments at 6-7 (noting that one-in-five exacerbates two-in-five, which gives applicants an incentive to apply all at once for everything needed over five years); EPS NPRM Comments at 2 (stating that the priority system is skewing the market and preventing innovation); E-Rate Reform NPRM Comments at 11, Exhibit F (demonstrating that market distortion occurs because applicants make purchasing decisions based on the priority classification); iNACOL PN Comments at 3 (stating two-in-five was ineffective); Miami-Dade NPRM Comments at 10 (stating that two-in-five has done the opposite of what was intended , which was to curtail excessive funding requests); SmartEdgeNet NPRM Reply Comments at 11-13 (eliminating priorities will reduce inefficient use of E-rate by getting rid of incentive to use more expensive means to meet needs); Weslaco ISD NPRM Comments at 10 (eliminating priorities will eliminate incentive to purchase higher priced priority one services when priority two services would be a better use of funds).

[251] *See, e.g.*, AASA PN Comments at 4-5; EdLiNC PN Comments at 11-12.

[252] *See, e.g.*, SECA NPRM Comments at 9-15; Nebraska OCIO PN Comments at 8 (supporting rotating eligibility, but only if begins with those applicants that have not received funding in recent years).

[253] *See, e.g.*, FFL NPRM Comments at 6; E-rate Reform NPRM Comments at 5.

[254] *See, e.g.*, California DOE PN Comments at 3-4 (liking rotating funding in concept, but finding it unpredictable); NEA PN Comments at 4-5.

with a constant, single-year budget would fail to account for the reality that individual applicants will have different needs in different years, depending on where they are in their upgrade cycle.

### c. Other Applicant Budget Issues

115. *Student Count.* Below we move to a district-wide calculation of applicants' discount rates. In order to determine the budget available each funding year, districts should calculate the number of students per school at the time that they calculate their district-wide discount rate annually.[255] We recognize that there will be some instances, such as the construction of a new school, that will make calculating the number of students more difficult for districts.[256] We will permit schools and school districts to provide a reasonable estimate of the number of students who will be attending a school under construction during a particular funding year and seek support for the estimated number of students. However, if an applicant overestimates the number of students who enroll in that school, it must return to USAC by the end of the next funding year any funding in excess of that to which it was entitled based on the actual number of enrolled students. This means a school at the 80 percent discount level, which estimates that it will have 1,000 students, may request E-rate support of up to $120,000. If, however, enrollment after the school opens is only 750 students, the school will have to return any committed support exceeding $90,000.[257] We note, however, that there may be funding years in which an entity loses students and therefore spent more than its available budget in the prior four funding years.[258] In these instances, we will not require repayment of any E-rate support, but there will be no available funding for that funding year. Students who attend multiple schools, such as those that attend educational service agencies (ESAs) part-time, may be counted by both schools in order to ensure appropriate LAN/WLAN deployment for both buildings.[259]

116. *Cost-Effective Purchasing.* Our goal in setting a per-student limit is to ensure schools and libraries can purchase the internal connections they need while discouraging them from purchasing unnecessary equipment or using an inefficient network design. At the same time, we emphasize that the pre-discount $150 budget per student is not a block grant. Applicants may only request funding for discounts on eligible category two services, and schools must continue to pay the non-discounted portion of the supported services. These requirements remain in place. We will not, however, second guess schools' and libraries' decisions to purchase additional equipment or services with other sources of funding if they determine that it is the most cost-effective service offering for what they have decided they need.[260]

117. *Rural Remote Applicants.* We decline to adopt the request made by some commenters that we provide additional category two funding or a rebuttable presumption allowing USAC or the Bureau to waive the budget for applicants in rural remote areas at this time.[261] As described above, we

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[255] The current instructions for FCC Form 471 state to "[p]rovide the number of students eligible for NSLP as of the October 1st prior to the filing of this form, or use the most current figure available." *See* USAC, Schools and Libraries, Forms, FCC Form 471 Instructions, http://www.usac.org/sl/tools/forms/default.aspx (last visited June 20, 2014).

[256] *See, e.g.*, SECA PN Comments at 19; South Texas PN Comments at 5.

[257] 1,000 students x $150 x 0.8 = $120,000. 750 students x $150 x 0.8 = $90,000. Any committed support over $90,000 must be returned to USAC.

[258] For example, the 80 percent discount level school with 1,000 students requests E-rate discounted support of $120,000. In the next funding year, if enrollment is down to 750 students, there is no obligation to repay the E-rate support made for the purchase in excess of $90,000.

[259] *See, e.g.*, SECA PN Comments at 19.

[260] *See* 47 C.F.R. § 54.511(a).

[261] *See, e.g.*, Integrated Logic PN Comments at 2-3 (stating that all aspects of broadband cost more in Alaska); SECA PN Comments at 17 (arguing for a presumption that could be rebutted for those applicants that have

(continued…)

find that LAN/WLAN costs are largely based on the costs of equipment, and therefore tend to have consistent prices nationwide.[262] To the extent there are price variations, it is often the case that internal connections upgrades are less expensive in rural areas because labor costs are lower, permitting is easier, and buildings are newer and/or easier to renovate.[263] Therefore, we conclude that the benefits of additional funding for rural remote areas are outweighed by the added administrative burden and the additional costs to the Fund of providing such additional support.

### 4. Setting an Annual Funding Target for Internal Connections

118. Based on the five-year school and library budgets we find sufficient above, total category two pre-discount requests over the next five-years will amount to no more than $8.8 billion to deploy LANs and WLANs in schools and libraries throughout the country.[264] After accounting for the non-discounted share paid by applicants, with a 15 percent minimum applicant contribution, we estimate that E-rate discounts will support approximately 67 percent of the total pre-discount cost of $8.8 billion for eligible category two services.[265] In addition, we estimate that there will be schools and libraries that do not seek funding or request less than the full budgeted amount to upgrade and maintain their LANs/WLANs over time. We therefore reduce the five-year budget by approximately 15 percent to avoid over-budgeting and set the five-year budget at $5 billion, plus annual inflation adjustments. We adopt an annual target of $1 billion, plus any annual inflationary changes, for category two services, which is equal to one-fifth of the five-year estimate of E-rate support. In addition to this annual budget, the Bureau may allocate any available carry forward funding to meet category two demand.

(Continued from previous page)
extenuating circumstances); Valerie Oliver PN Comments at 5 (seeking additional support for areas outside the continental United States).

[262] *See, e.g.*, HP PN Comments at 7 (confirming that prices for internal wireless networks generally scale proportionally with student body size).

[263] *See, e.g.*, Mississippi Technology Coordinators Ex Parte at 1 (filed May 12, 2014) (explaining that costs in Lamar County, Mississippi are three to five time less than some in other areas of the nation); Council PN Comments at 6.

[264] ($150 x ~53.5 million public and private students) + $245 million for the schools funding floor + ($2.30 x ~185 million square feet of library space) + ~61.2 million for the library funding floor = ~$8.8 billion. *See* Institute of Museum and Library Services, Public Libraries Survey: Fiscal Year 2012: Public Library Outlet Data File (2014), http://www.imls.gov/research/pls_data_files.aspx (last visited July 3, 2014) (totaling approximately 200 million square feet of library space in the Puout12a.xls data file); *see also* U.S. Department of Education, National Center for Education Statistics, Institute of Education Statistics, Enrollment and percentage distribution of enrollment in public elementary and secondary schools, by race/ethnicity and region: Selected years, fall 1995 through fall 2023, Table 203.50, http://nces.ed.gov/programs/digest/d13/tables/dt13_203.50.asp (last visited July 10, 2014) and Private elementary and secondary enrollment, number of schools, and average tuition, by school level, orientation, and tuition: Selected years, 1999–2000 through 2011-12, Table 205.50, http://nces.ed.gov/programs/digest/d13/tables/dt13_205.50.asp (last visited July 10, 2014) (total Fall 2011 public school student count of 49,521,669 and private school count of 4,479,530). Approximately 15 million square feet of library space and 500,000 students are accounted for by the funding floors.

[265] *See* Submission for the Record from Funds For Learning, FY2014 E-rate Funding Requests: Telecommunications and Internet Access by Schools & School Districts, WC Docket No. 13-184, at 3 (filed May 14, 2014) (FFL May 14, 2014 Submission for the Record) (showing a 69.0 percent average discount nationwide). We estimate that the national average will be 1.5 percent less as a result of the increase to the minimum discount level contribution from 10 to 15 percent. *See supra* section IV.B.2.

### 5. Focusing Support on Broadband

#### a. Core Components of Broadband Internal Connections

119. In order to help deploy LANs/WLANs necessary to permit digital learning in schools and libraries throughout the nation, we focus the category two ESL on broadband.[266] With one narrow exception,[267] we limit internal connections support to those broadband distribution services and equipment needed to deliver broadband to students and library patrons: routers, switches, wireless access points, internal cabling, racks, wireless controller systems, firewall services, uninterruptable power supply, and the software supporting each of these components used to distribute high-speed broadband throughout school buildings and libraries. Some form of each of these services has previously been designated as eligible for E-rate support, and we find they are necessary to ensure delivery of high-speed broadband services to students and library patrons via LANs/WLANs.[268] We do not limit these eligible services by form, and therefore agree that equipment that combines functionality, like routing and switching, is also eligible.[269] Similarly, we recognize that some functionalities can be virtualized in the cloud, such as cloud wireless controllers, and therefore will permit such services to be eligible for purchase by schools and libraries.[270]

120. To focus support on only those internal connections necessary to enable high-speed broadband connectivity, beginning in funding year 2015, we eliminate E-rate support for the priority two components that had been in the following ESL entries: Circuit Cards/Components; Interfaces, Gateways, Antennas; Servers;[271] Software; Storage Devices; Telephone Components, Video Components, as well as voice over IP or video over IP components, and the components, such as virtual private networks, that are listed under Data Protection other than firewalls and uninterruptible power supply/battery backup. In recognition of our need to be a "prudent guardian of the public's resources,"[272] we find that eliminating these priority two components from the ESL ensures that there is more E-rate support available to deploy the LANs/WLANs needed to improve digital learning in schools and libraries. It is also consistent with section 254(h)(2)(A) of the Act, which requires that support to schools and libraries improve access to advanced services in a manner that is "technically feasible" and "economically reasonable."[273] We direct

[266] *See, e.g.*, SDDOE PN Comments at 2; SECA PN Comments at 3-5 (only essential broadband equipment should be funded and all other equipment and services in the current priority two category should be ineligible; these other services may be important but not integral to the availability of broadband connectivity); American E-rate PN Comments at 7 (supports the removal of priority two telephone components from the ESL because it seems redundant to have these available as a purchase and these components are very expensive to purchase and maintain); PAIU NPRM Comments at 7 (only routers, switches, WAPs, and internal data cabling and the associated installation should remain eligible; all other internal connections such as VoIP equipment, video equipment, UPSs and servers should be ineligible); The Quilt PN Comments at 4; Valerie Oliver PN Comments at 2-3; WVDE PN Comments at 6. *But see* Alaska EED NPRM Comments at 9 (the FCC should recognize that videoconferencing equipment, in areas that rely upon distance delivery of highly qualified instructors, is vital to transporting information).

[267] *See infra* para. 130 (designating caching functionality as eligible for internal connections support).

[268] *See, e.g.*, Jive PN Comments at 3; Nebraska OCIO PN Comments at 8; The Quilt PN Comments at 4; SDDOE PN Comments at 2.

[269] *See, e.g.*, Free Library PN Comments at 2.

[270] *See, e.g.*, SHLB PN Comments at 3, n.7.

[271] We eliminate support for servers except to the extent that we, or the Bureau, determine that certain servers may be necessary for the provision of caching. *See infra* paras. 130-131.

[272] *See supra* n.115 (citing *Vermont Pub. Serv. Bd. v. Fed. Commc'n Comm'n,* 661 F.3d 54, 65 (D.C. Cir. 2011) (finding that, in the context of section 254, "as the Commission rightly observed, it has a responsibility to be a prudent guardian of the public's resources.")).

[273] *See* 47 U.S.C. § 254(h)(2)(A).

the Bureau to release for comment a draft ESL for funding year 2015 consistent with this Report and Order, and encourage applicants to carefully review the eligible components included in the modernized category two section in that draft ESL. Some components that had been listed in the ESL as priority two may be relocated or described in updated or more generic terminology.[274]

121. Also, despite support from some commenters,[275] we decline at this time to designate further network security services and other proposed services in order to ensure internal connections support is targeted efficiently at the equipment that is necessary for LANs/WLANs. Many commenters agreed that a limited list of eligible services would help ensure available funds are targeted and therefore available to more applicants.[276] As we noted above, we leave the record open on these services to allow for further comment as we evaluate the changes in the first funding year.[277]

### b. Basic Maintenance, Managed Wi-Fi, and Caching

122. *Basic Maintenance.* For funding years 2015 and 2016, we will continue to provide support for basic maintenance services subject to each school or library's overall budget on E-rate eligible category two services. In the *E-rate Modernization NPRM*, the Commission proposed phasing out support for basic maintenance because the same high-discount school districts received ample funding, while most school districts received none.[278] Commenters point out however, that basic maintenance is needed to ensure networks operate properly, particularly as networks become more complicated.[279] We believe that we can achieve the stated goal of broader funding distribution through other means, including a reasonable and equitable limit on the total amount of E-rate support available per student and per square foot which will discipline districts and libraries in basic maintenance purchasing decisions. In particular, applicants are unlikely to seek support for unnecessary basic maintenance given these limits on the total amount available, but providing support to ensure these networks function effectively may aid those districts with limited resources. Support will only be available for maintenance on equipment and services on the ESL and not for any of the legacy services phased out in this Report and Order.

123. *Managed Wi-Fi.* In light of the applicant budgets for funding years 2015 and 2016, we are persuaded by commenters who argue that managed Wi-Fi, which we call managed internal broadband services in the rules to cover the operation, management, or monitoring of a LAN or WLAN, should be

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[274] For example, the category "Interfaces, Gateways, Antennas" names some components in outdated terms such as "bridges", or terms such as "cable modem" that are interchangeable or subsumed by other components such as "routers" or "switches" that were in the Data Distribution entry, but remain eligible for E-rate funding in funding year 2015.

[275] *See, e.g.*, Amplify PN Comments at 6-7; Bright House PN Comments at 4 (arguing support for be provided for network protection, including intrusion protection and detection, malware protection, application control, content filters, DDoS mitigation, and Unified Threat Management technology); CenturyLink PN Comments at 4 (stating that DDOS, cybersecurity services, and cloud storage should be eligible); South Texas PN Comments at 6-7 (seeking support for traffic shaping appliances, network security management, and more).

[276] *See, e.g.*, Nebraska OCIO PN Comments at 8; Valerie Oliver PN Comments at 3-4 (stating that providing support for only the essential components helps the program provide greater access to support).

[277] *See supra* para. 9.

[278] *E-rate Modernization NPRM*, 28 FCC Rcd at 11334, para. 101.

[279] *See, e.g.*, Cisco PN Reply Comments at 6 (stating basic maintenance is needed to ensure E-rate investments are not wasted when networks experience problems); Council PN Comments at 7 (stating basic maintenance is a "critical component"); Sheri Callen PN Comments at 1 (explaining basic maintenance is needed to keep the network robust and healthy); TIA NPRM Comments at 3 (finding that basic maintenance is needed to "ensure reliable networks and reduce the need for costly equipment replacement").

eligible for internal connections support.[280] In the past, applicants could seek internal connections support only for the purchase of internal connections and basic maintenance. Unlike the traditional approach to internal connections, for managed Wi-Fi service contracts, schools and libraries obtain LANs/WLANs as a service for a period of three to five years from a third party who manages the entire system, providing operations and maintenance for the life of the contract.[281] In other cases, the school or library may own the equipment, but have a third party manage it for them.

124. The record demonstrates that applicants would benefit from greater flexibility to choose among managed Wi-Fi options. In particular, the variations of managed Wi-Fi services can provide substantial benefits and cost savings to many schools and libraries, particularly small districts and libraries without a dedicated technology director available to deploy and manage advanced LANs/WLANs quickly and efficiently.[282] Therefore, pursuant to our authority under section 254 of the Act, we find that providing support for managed internal broadband services, including managed Wi-Fi, will "enhance…access to advanced telecommunications and information services" for schools and libraries,[283] and we direct the Bureau to include managed internal broadband services on the ESL for funding years 2015 and 2016.

125. Under the five-year applicant budget approach we adopt above, a district, school, or library will be able to seek annual support for a managed Wi-Fi service, up to an average pre-discount rate cost of $30 per student per year or one-fifth of the budget available to libraries based on floor area.[284] This is consistent with the price of managed Wi-Fi services in the market today and limits the likelihood of waste or abuse in these managed Wi-Fi contracts. As noted below, we will allow districts and libraries to sign multi-year contracts, but we will not make multi-year commitments.[285] Our short-term budget will be sufficient to fund these smaller multi-year contracts and we will continue to evaluate whether additional changes are needed in the long-term, but emphasize that there is no guarantee of funding.

126. We disagree with commenters who argue that managed Wi-Fi should be a category one service.[286] Despite our recognition that virtualization and management may send some amount of information beyond the walls of the school or library building in order to manage the internal networks, we find that services used to distribute bandwidth throughout the school are internal connections services. We therefore remove the presumption in our rules that such a service is not an internal connection.[287]

127. Competitive bidding rules still apply to procurement of managed Wi-Fi services. We encourage districts to request bids in technologically neutral ways and compare the cost-effectiveness of bids for self-provisioned networks with those for managed Wi-Fi contracts. We also encourage schools

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[280] *See, e.g.*, ADTRAN NPRM Comments at 22-23; Bright House PN Comments at 2-3; C-Spire Fiber PN Reply Comments at 2-4; EPS PN Comments at 9; ENA PN Comments at 1; The Quilt PN Comments at 4; Sprint PN Comments at 2; Verizon PN Comments at 5; WVDE PN Comments at 8-9.

[281] *See, e.g.*, C-Spire Fiber PN Comments at 5, 8.

[282] *See, e.g.*, SHLB PN Comments at 3 n.7; WVDE PN Comments at 8-9.

[283] 47 U.S.C. § 254(c)(3), (h)(1)(B), (h)(2)(A); *see also Universal Service First Report and Order*, 12 FCC Rcd at 9009, paras. 436-37.

[284] Managed Wi-Fi services often spread the costs of any necessary equipment and the management of the network over a five-year contract. *See, e.g.*, C-Spire Fiber PN Comments at 5, 8.

[285] *See infra* para. 196.

[286] *See, e.g.*, Ohio ERC PN Comments at 2-3 (arguing wireless access service fulfills the requirements of the *Tennessee Order*).

[287] *See* 47 C.F.R. § 54.502(a)(4)(i) ("There is a rebuttable presumption that a connection does not constitute an internal connection if it crosses a public right-of-way.").

and libraries considering managed Wi-Fi to evaluate the value of joining a consortium of schools and libraries to increase their buying power and drive down costs.[288]

128. We also clarify that E-rate support for managed Wi-Fi is limited to those expenses or portions of expenses that directly support and are necessary for the broadband connectivity within schools and libraries. Eligible managed Wi-Fi 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.[289] Eligible managed Wi-Fi expenses do not include a managed voice service, for example. For bundled pricing that includes eligible and ineligible expenses, applicants are required to cost allocate eligible from ineligible services to ensure only eligible services are supported.[290]

129. Finally, we delegate to the Bureau the authority to determine how best to interpret managed services for the purposes of the ESL as we gain experience with funding of these services through the E-rate program.[291] Wireless access as a managed service is a market that is still being developed, and we believe it will facilitate the efficient and effective support of these services to provide the Bureau flexibility to adjust our approach as this market develops. As always, parties may appeal any Bureau decision to the full Commission.

130. *Caching*. Due in part to the applicant budgets for funding years 2015 and 2016 limiting waste or abuse, we agree with commenters who argue that caching functionality should be eligible for internal connections support.[292] Caching functionality enables the local storage of information so that the information is accessible more quickly than if it is transmitted across a network from a distant server. By placing previously requested information in temporary storage, caching functionality can, in certain circumstances, optimize network performance, and potentially result in more efficient use of E-rate funding.[293] The record indicates that caching functionality can be an integral component of some LANs and WLANs.[294] As commenters point out, caching can provide a more affordable way to achieve

[288] *See, e.g.*, Letter from John Windhausen, Jr., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed May 6, 2014) (discussing how Idaho has a contract for $21 per user).

[289] Installation, activation, and initial configuration of eligible components, and on-site training on the use of eligible equipment are also eligible for E-rate funding when purchased as part of the contract or agreement for the equipment outside of the managed Wi-Fi context.

[290] *See* 47 C.F.R. § 54.504(e).

[291] This delegation is not intended to expand the Bureau's delegated authority to add or remove other eligible services to or from the ESL, except as consistent with Commission decisions.

[292] Chicago NPRM Reply Comments at 4 ("Providing caching will allow for more efficient use of WAN links, which will result in reduced circuit costs."); LAUSD Ex Parte at 1; SIIA NPRM Comments at 6 ("SIIA agrees that funding for caching servers should be a higher priority to enable increased student access for any given broadband speed."); Comments of High School District 214, WC Docket No. 13-184, at 15 (filed June 4, 2014); Amplify PN Comments at 6-7; Microsoft PN Comments at 2.

[293] *See, e.g.*, ACS PN Comments at 4 (technology can help the affordable available bandwidth "punch above its weight."); Microsoft PN Comments at 3-4; Letter from Deborah K. Broderson, Counsel to TV Band Service, LLC, to Marlene H. Dortch, Federal Communications Commission, WC Docket No. 13-184, at attachment entitled "Caching Service Report" at 1 (filed May 29, 2014); *but see, e.g.*, CoSN PN Comments at 8 (stating that services like caching are excellent, but should be addressed through non E-rate funds in order to maximize support for necessary connections).

[294] *See, e.g.*, Wisconsin Districts Ex Parte at 1 (stating that Wisconsin's member-based, Internet provider for research and educational institutions provides caching services for all network users); SIIA NPRM Comments at 6 (stating that some schools are now requiring caching to address their bandwidth limitations); Microsoft PN Comments at 3-4; LAUSD Ex Parte at 1.

bandwidth goals.[295] This is consistent with the goal we adopt in this Report and Order, as well as the Commission's authority to ensure affordable access to E-rate supported services.[296] As such, we disagree with commenters who argue that caching functionality should not be supported by E-rate funds.[297] Instead, we designate caching functionality as an eligible service that "enhance(s), to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services" for schools and libraries.[298] As with the core components of broadband internal connections,[299] we agree that equipment that combines caching functionality with other functionalities is also eligible.[300] However, equipment that combines caching functionality with an ineligible functionality must be cost allocated. We therefore delegate to the Bureau the authority to define caching functionality, as well as the necessary software or equipment, such as caching servers,[301] for the purposes of the funding years 2015 and 2016 Eligible Services List. As always, parties may appeal any Bureau decision to the full Commission.

131. *Eligibility After Funding Years 2015 and 2016.* We make these determinations about eligibility in light of the applicant budgets we set out above that mitigate some of our concerns about waste or abuse.[302] We therefore direct the Bureau to include basic maintenance, managed internal broadband services, and caching functionality on the ESL for funding years 2015 and 2016. The Commission will evaluate the benefits and drawbacks of these eligibility determinations in future funding years as it continues its work modernizing the program. Absent Commission action, in funding year 2017 and in subsequent funding years, support for basic maintenance, managed internal broadband services, and caching functionality, as an internal connection, will be available only to those applicants that received support in funding years 2015 and 2016 and are operating under a five-year applicant budget.[303]

### 6. Other Issues

132. *Category Two Installation Can Begin on April 1.* We also amend our rules for category two non-recurring services to permit applicants to seek support for category two eligible services purchased on or after April 1, three months prior to the start of funding year on July 1.[304] This will provide schools with the flexibility to purchase equipment in preparation for the summer recess and provide the maximum amount of time during the summer to install these critical networks. We agree with commenters who note that the last day of school is often in May or June and schools need to be able to use the entire summer recess to ensure the networks are ready when students return to school.[305] This is

[295] *See, e.g.*, Massachusetts Districts Ex Parte at 4 (stating that purchasing caching equipment, as opposed to purchasing additional bandwidth, would save school districts money over the long term); Microsoft PN Comments at 3-4.

[296] *See* 47 U.S.C. § 254(h)(1)(B).

[297] *See, e.g.*, CoSN PN Comments at 8; PAIU PN Comments at 4.

[298] *See* 47 U.S.C. § 254(h)(2)(A).

[299] *See supra* paras. 119-121.

[300] *See, e.g.*, Free Library PN Comments at 2.

[301] *See supra* n.292.

[302] *See* section IV.B.3.

[303] *See* section IV.B.3.

[304] We clarify that disbursements will not be made until July 1.

[305] *See, e.g.*, SECA PN Comments at 30.

also consistent with our previous decision to allow advance installation and construction under certain conditions.[306]

133. *Administration.* In accordance with this section, we make necessary changes to sections 54.500, 54.502, 54.505, and 54.507 of our rules, as outlined in Appendix A. We recognize that these represent major changes to the structure and distribution of support for internal connections. Because unanticipated technical or operational issues may arise that require prompt action, we reaffirm the delegation of authority to the Bureau to interpret our rules "as necessary to ensure that support for services provided to schools and libraries… operate to further our universal service goals."[307]

### C. Phasing Down and Ending Support for Legacy and Other Non-Broadband Services

134. In funding year 2013, approximately 50 percent of priority one E-rate funding was committed to high-speed broadband services, while approximately one third went to fixed voice and mobile services.[308] Phasing down support for voice services and eliminating support for certain legacy services will allow us to focus E-rate program funding on the high-speed broadband needed by schools to enable digital learning and by all libraries to meet the broadband needs of their patrons. After the first two years of the phase down, the Bureau will issue a report evaluating the impact of the reduction in support for voice services. If the Commission takes no further action, the voice services phase down will continue.

#### 1. Phasing Down Support for Voice Services

135. Many commenters support reducing E-rate support for voice services to focus the E-rate program on broadband.[309] We agree that voice services, while important for schools and libraries, are not as essential as high-speed broadband is for meeting the educational needs of students and library patrons. Instead of immediately eliminating support for voice services, we will reduce voice support each funding year by subtracting the discount rate applicants receive for voice services by 20 percentage points every funding year. In funding year 2015, the discounts applicants receive for voice services will be reduced by 20 percentage points from their discount rates for other eligible services, and in funding year 2016, the discounts applicants receive for voice services will be 40 percentage points lower than their discount rates for other eligible services. In each subsequent funding year, the discounts applicants receive for voice services will be reduced by an additional 20 percentage points. Over the first two years of the phase down for voice services support, we direct the Bureau to evaluate the impact of the phase down on eligible schools and libraries and study the transition of eligible schools and libraries to VoIP services and

[306] Currently, while the service start date stays the same, applicants can start installation for special construction or build-outs up to six months prior to July 1, as long as four early funding conditions are met. *See Request for Review of the Decision of the Universal Service Administrator by Nassau County Board of Cooperative Educational Services, Westbury, Schools and Libraries Universal Service Support Mechanism*, CC Docket Nos. 96-45 and 97-21, Order, 17 FCC Rcd 24584 (Wireline Comp. Bur. 2002); *see also* USAC, Schools and Libraries, Advance Installation, http://www.usac.org/sl/applicants/step06/installation.aspx (last visited June 10, 2014).

[307] *Federal-State Joint Board on Universal Service*, Third Report and Order, CC Docket No. 96-45, 12 FCC Rcd 22485, 22488-89, para. 6 (1997) (*Universal Service Third Report and Order*).

[308] *See* USAC Broadband Connectivity Data Response FY2012 and 2013. In funding years 2012 and 2013, as of May 13, 2014, USAC committed approximately $675,000,000 and $667,000,000, respectively, in support of voice and voice-related services. *Id.*

[309] *See, e.g.*, Illinois CMS NPRM Comments at 9-10 (recognizing voice service as an application that can be delivered over broadband platforms and that funding for applications should be phased out in order to direct funding towards high-capacity broadband to and within schools); Weslaco ISD NPRM Comments at 8; EdCo NPRM Reply Comments (supports the transition from a voice-focused E-rate program to a broadband-centric enabler of digital learning as soon as possible); ACA NPRM Comments at 12; Alaska EED NPRM Comments at 7-8; CSM NPRM Comments at 12; GCI NPRM Comments at 14; CWA NPRM Comments at 4 (supporting phase down for non-broadband services such as voice telephony).

issue a report to the Commission as we continue to reduce voice support by 20 percentage points each year. If, by the opening of the funding year window for funding year 2018, the Commission takes no further action, the voice phase down will continue.

136. Voice services have been eligible for E-rate program funding since the Commission determined that the E-rate program should support all commercially available telecommunications services in the *Universal Service First Report and Order*.[310] When the Commission established the E-rate program in 1997, the goal was to provide schools and libraries discounts on the broadest class of telecommunications services and advanced services available at that time, and to provide schools and libraries the flexibility to purchase new technologies as they became available.[311] However, the options for Internet access then were generally limited to dial up modem services offered over POTS lines, and the data links provided by T-1 and T-3 lines.

137. Today, a much broader array of high-speed broadband services are available to and needed by schools and libraries to support modern digital learning initiatives.[312] Moreover, support for voice services today consumes approximately one third of E-rate commitments while many schools and libraries are unable to access the funding they need for internal connections to provide high-speed broadband throughout schools and libraries.[313] In order to meet our goal of funding high-speed broadband services to support digital learning in schools and robust connectivity for all libraries, we conclude that we can no longer continue to fund voice services at the same discounts rates as applied to other eligible services that provide broadband access. Instead, we will gradually reduce E-rate funding for voice services and shift these funds to support those services that provide high-speed broadband. Accordingly, we remove the reference to E-rate supporting "all commercially available telecommunications services" in section 54.502(a) of our rules so that it is clear to applicants that the telecommunications services that are supported by E-rate are listed in the ESL, rather than potentially sending a confusing message that any telecommunications service available on the market is eligible for E-rate discounts. This is important now that we are phasing down support for voice services and eliminating support for some of the services associated with telephone service as explained herein. We also add to the rules our schedule for phasing down support for voice services.[314]

138. We recognize that many schools and libraries consider E-rate support for voice services an important part of their overall budgets.[315] However, several factors should help ameliorate the impacts

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[310] *Universal Service First Report and Order,* 12 FCC Rcd at 9006, para. 431. *See also* 47 C.F.R. § 54.502(a)(1)(2011).

[311] *Universal Service First Report and Order,* 12 FCC Rcd at 9006-07, paras. 431-33 (making all commercially available telecommunications services eligible for E-rate to provide applicants with flexibility to meet their individual needs, but also to ensure that schools and libraries could obtain discounted "state-of-the-art telecommunications technologies as those technologies [became] available").

[312] The E-rate program currently supports a variety of high-capacity broadband transmission services including but not limited to fiber, DSL, wireless, and satellite services. *See, e.g., 2014 ESL* at 2-3 (listing eligible digital transmission services).

[313] *See infra* n.324.

[314] *See* Appendix A.

[315] *See, e.g.*, New Hope PN Reply Comments at 2 ("if phone service is eliminated from the program, we have school districts that will absolutely have to make a choice between funding infrastructure and keeping teachers"); Kellogg & Sovereign PN Reply Comments at 3 (a large number of school districts have traditionally redirected the discounts received for voice to their technology budgets to support broadband); a loss of voice support will require a reduction in broadband services); Julie Shook PN Comments at 1 (losing funding for local and long distance telephone service would leave us to try to find money to pay our phone bill without the help we have been receiving for 16 years); SDDOE NPRM Comments at 10 (voice phone service is in many instances the only service for which applicants seek E-rate funding; this funding then offsets these costs and allows them to use other budgeted funds for equipment and other technology purchases); Chicago NPRM Reply Comments at 5 (phasing out funding for voice

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of gradually phasing down support for these services. First, voice is now a competitive offering in many areas, and the availability of VoIP services, particularly for those with broadband, provides a cost-effective option for many schools and libraries.[316] This expansion of competition, particularly from VoIP offerings, represents a substantial shift since the E-rate program was created in 1997. Whereas changes in the voice market are reducing the costs of voice service over time, the shortage of funding for broadband services has increasingly become an impediment to balancing all of the Commission's requirements under section 254(h). Second, because we will initially reduce the maximum discount available for voice services to 70 percent in 2015, and 50 percent in 2016,[317] our approach strikes a balance between those commenters supporting elimination of discounts for voice services with those school and library commenters that stressed the importance of retaining some level of support over a defined period of time.[318] Third, as a result of the other measures we take in this Report and Order, the applicants affected

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communication services would have a huge impact on Chicago Public Schools as the services associated with these funds are used in a variety of areas and cost over $20 million annually); Hawaii NPRM Comments at 9-10 (Hawaii DOE currently requires more than three million dollars per year in E-rate support for voice services and relies on these services); WVDE NPRM Comments at 42 (WV districts use the savings from priority one eligible services to cover the difference for the costs of increasing bandwidth to faster speeds); Carnegie Library NPRM Comments at 7, 8 (if funding for VoIP service is eliminated, we would face a major budget crisis, requiring the potential elimination of programs and outreach); FFL NPRM Comments at 29-32 (eliminating POTS, cell phone service, email and webhosting would dramatically hurt the 9,100 individual schools (about half of all applicants, seeking $180 million in support that applied for E-rate in funding year 2013, reducing their monthly discounts from $1,621 by $1,030). *But see* SDDOE PN Comments at 3 ([t]he fact of the matter is, schools and libraries had voice telephone lines in their buildings prior to E-rate and they will continue to have these services after E-rate funding is eliminated; [b]ut they do need and deserve advance notice to plan for this change.").

[316] *See, e.g.*, iNACOL PN Comments at 6-7 (seventy percent of iNACOL members report being able to transition their traditional telephone services to IP based solutions without negative impact on student learning); CenturyLink PN Comments at 16 (voice service will gradually transition to a broadband application in most areas); San Diego County NPRM Comments at 4 (the convergence of voice and data now allows for increased efficiencies through VoIP); Hawaii NPRM Comments at 9-10 (Hawaii DOE envisions a gradual transition to a predominantly broadband VoIP system over time); Illinois CMS NPRM Comments at 9-10 (recognizing voice service as an application that can be delivered over broadband platforms and that funding for applications should be phased out in order to direct funding towards high-capacity broadband to and within schools). *See USF/ICC Transformation Order*, 26 FCC Rcd at 17688, para. 68 ("interconnected VoIP service is increasingly used to replace analog voice service.") *See also* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed June 16, 2014) (June 16, 2014 Requested Data Ex Parte) (presenting data from three school districts on the cost of transition to hosted VoIP and a comparison of monthy recurring costs before and after transition; monthly recurring costs for voice service appears to be lower for all three districts after transitioning to VoIP, but transition and installation costs vary).

[317] SECA's and PAIU's initial comments in this proceeding recommended a flat rate discount for voice services of 50 percent, and 40 percent, respectively. SECA NPRM Comments at 22-24; PAIU NPRM Comments at 2.

[318] Although many commenters agree that it is appropriate to refocus E-rate funding on broadband, a large subset of these commenters assert that as we make this transition, our phase down of support for voice services should be gradual enough to allow applicants time to adjust to the loss of funding. *See, e.g.*, AASA PN Comments at 4 (does not support reductions in E-rate funding for voice services but should support be reduced "it must be a gradual ramp down of support over no fewer than three years"); Nebraska OCIO NPRM Comments at 11 (recommends retaining support for voice services but if the Commission defunds such services it should do so over a determined period of time); KDLA PN Comments at 4 (phase out voice services over time, and provide at least one year's notice before any action is taken); Illinois CMS PN Comments at 7 ("we are flexible on the mechanism of phase out but the approach of gradually reducing the discount rate seems reasonable"). *See also* Cox PN Comments at 7 (the target funding level for voice should be the cost of reliable managed voice products delivered over broadband networks and to reach these reduced support levels, the Commission could phase-down support for voice services to 50 percent of current levels over the next five years at 10 percent per year); Bright House PN Comments at 8 (supports limiting funding for voice services to a benchmark rate set at the same price as a corresponding VoIP service);

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by this change will have opportunities to seek funding for broadband infrastructure that may not have been available to them previously. To some degree, this may offset changes in their overall budgets. Finally, our decision does not alter the Commission's requirement that providers of eligible services must provide supported services at a lowest corresponding price (LCP).[319] While voice service remains a supported service, the Commission's LCP rule serves as a safeguard for affordability because service providers cannot submit bids for or charge E-rate applicants a price above the LCP for E-rate services; E-rate discounts are then applied to a service provider's LCP.[320]

139. Several stakeholders suggest that in lieu of gradual transition, we give schools one or two years more of full support for voice service, but then eliminate support for voice altogether in funding years 2016 or 2017.[321] While that approach might benefit recipients seeking voice support for the next one or two funding years, it would eliminate funding for voice services altogether before the Commission has had a chance to study the impact of the gradual phase down of support for voice services on eligible schools and libraries. The approach we take today is more gradual while allowing us to begin redirecting E-rate funding to broadband next year. We agree that our revised interpretation of section 254 requires us to redefine eligible services and shift support away from voice services and towards broadband services, but eliminating support in 2016 or 2017 would cause a more abrupt change in schools and library budgets in those funding years, which we believe many applicants would find difficult to absorb – particularly those serving the highest poverty communities. Phasing down support for voice services over several funding years preserves some funding for applicants at least for the next several funding years, with the most economically disadvantaged schools and libraries receiving the highest discounts as they consider alternatives in the marketplace.[322]

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Wisconsin DPI PN Comments at 7 (propose an E-rate funding ceiling of $2,000 per applicant for basic phone service in consideration of its smaller libraries and schools that still need POTS).

[319] 47 C.F.R. § 54.511(b) (2011) (providers of eligible services shall not charge schools and libraries a price above the lowest corresponding price for supported services unless the Commission finds that the lowest corresponding price is not compensatory). "Lowest corresponding price" is the lowest price that a service provider charges to non-residential customers who are similarly situated to a particular school, library, or consortium for similar services. 47 C.F.R. § 54.500(f) (2011). *See infra* section V.C.

[320] *See* 47 C.F.R. § 54.511(b), as amended herein.

[321] *See* SECA PN Comments at 6-7; PAIU PN Comments at 8 (any plan to phase out discount percentages over a few years will be too confusing; should the Commission decide to eliminate a priority one service, it should simply eliminate it, but not before funding year 2017); SDDOE PN Comments at 3 (eliminating funding voice service in funding year 2017 provides applicants with nearly three additional years of full funding for voice (other than cell services) and three years for making alternate plans for their budgets); Friday Institute NPRM Comments at 6; Valerie Oliver PN Comments at 6 (delay elimination of voice supported services until funding year 2016); Arkansas PN Reply Comments at 14 (does not agree with elimination but if voice is eliminated, believes it is simpler to eliminate it on a date certain and recommends that any phase out be completed in funding year 2016 or 2017); PAIU PN Reply Comments at 5-6 (voice and web hosting should be eliminated in funding year 2017). Sprint PN Comments at 4 (recommends that full E-rate support for voice services continue at least for the funding year after the date the new rule is adopted, with multiyear contracts grandfathered under the current rules for the length of the contract, with a maximum contract length of 3 years).

[322] Some commenters proposed that as long as a gradual approach was taken, funding for voice could be phased out versus phased down. *See, e.g.*, iNACOL PN Comments at 6-7 (the proposal of a three-to-five year gradual phase-out through reduced annual funding balances the need to transition the E-rate program away from voice but allows schools and libraries time to set up alternatives); EdCo PN Comments at 7 (supports a three-to-five year phase out); Alaska EED NPRM Comments at 7 (recommending a phase out of support for voice service beginning in funding year 2015 which would require applicants to pay an increasing percentage each year through funding year 2018, until they are carrying the full burden of the service without E-rate support); Boston PN Comments at 8 (generally supporting the Bureau's proposal to gradually phase down support and suggesting that schools and libraries that make the transition to broadband solutions more quickly be rewarded with the ability to use discounted rates for VoIP and other purchases during the phase down); METLA NPRM Comments at 11 (voice and other services that

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140. In the *E-rate Modernization Public Notice*, the Bureau sought comment on phasing out support for voice services by 15 percentage points per funding year.[323] We now conclude that a per-year reduction of 20 percentage points is appropriate because we find a more straightforward percentage point decrease should be easier for applicants to calculate, and will help ensure that sufficient funding for is available for supported services.[324] Beginning in funding year 2015, when the maximum discount rate for category one services will be 90 percent, eligible applicants shall receive a maximum discount rate of 70 percent for voice services.[325] We disagree with those commenters who argue that reductions will be difficult for applicants to understand and for USAC to administer.[326] The discount rate for voice services will be based on an applicant's already established discount rate and will require only a simple 20 percentage point subtraction from the discount rate any applicant would otherwise be required to calculate to receive support from the program. We change the FCC Form 471 to enable applicants to seek support for voice services using a separate funding request number (FRN) from other eligible services starting in funding year 2015. Combining voice and non-voice services in a single FRN would cause delays in processing if USAC had to separate out the services during the application review process.

141. The reduced discount rates for voice services will apply to all applicants and all costs incurred for the provision of telephone services and circuit capacity dedicated to providing voice services including: local phone service, long distance service, plain old telephone service (POTS), radio loop, 800 service, satellite telephone, shared telephone service, Centrex, wireless telephone service such as cellular, and interconnected VoIP.[327] Although there was some support in the record for excluding VoIP from the

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do not focus on providing adequate bandwidth to schools and classrooms should be removed from the program within three to five years).

[323] *E-rate Modernization Public Notice*, 29 FCC Rcd at 2186-87, para. 41.

[324] Assuming $2.6 billion in demand for priority one (P1) services, we estimate that phasing down the discount rate for voice services will make available approximately $860 million for broadband support. For funding year 2013, voice services represented approximately 33 percent of committed P1 support. *See* USAC Broadband Connectivity Data Response FY2012 and 2013.

[325] Those applicants eligible for the 90 percent discount, therefore, will be eligible for a 70 percent discount in funding year 2015 and a 50 percent discount in 2016, and so on, in each subsequent funding year.

[326] *See, e.g.*, SECA PN Comments at 6-7 (recommending that if the Commission determines it should eliminate a service, it should eliminate a service in its entirety on a certain funding year, and in particular, web hosting, e-mail and cellular services should be eliminated in funding year 2015, and the remaining voice services be eliminated in funding year 2017); PAIU PN Reply Comments at 5-6.

[327] *See E-rate Modernization Public Notice*, 29 FCC Rcd at 2188, para. 44 (asking whether the entries for telephone services, telephone components, and interconnected VoIP in the ESL include all of the types of voice services and components that should be covered by the five year phase out and if there other types of telephone services that are not specifically listed in the current ESL that should be subject to the phase out). Although they did not all come to consensus on the timing of the phase down of support, several commenters said they would subject all voice services to the phase down including hosted VOIP, SIP trunks, and PRI. *See, e.g.*, SECA PN Comments at 6; Stoneberger PN Comments at 16; Washington OSPI PN Comments at 4. The ESL currently treats 800 services as a telephone service. Therefore, these services will also be subject to reduced discounts as part of the phase down. We agree with those commenters that argue against eliminating 800 services because these services help parents of school children that live in different LATAs avoid long distance charges and assist library patrons with unique challenges to use library services. *See* ENA NPRM Comments at 30 (removal of 800 number service and text messaging would create hardships in rural communities where 800 number service is made available so all parents can call a school without paying long distance because there are two different telephone LATAs); Carnegie Library NPRM Comments at 5 (not having E-rate funding for its 800 service at its blind and physically handicapped facility would make it much more difficult for patrons to receive assistance); Chicago NPRM Reply Comments at 6. However, all features associated with telephone service, such as directory assistance charges, will no longer be eligible for E-rate support. *See infra* para. 145.

voice services phase down,[328] we agree with those commenters that assert that retaining a higher level of funding for VoIP services while reducing the discount rate only for non-IP voice services would provide VoIP providers a competitive advantage in serving schools and libraries.[329] Because the marginal cost of delivering VoIP services should be lower once schools and libraries have robust broadband, we expect the price of these services to continue to drop over the coming years, alleviating the need to retain higher discounts for VoIP funding.[330] Similarly, a few commenters argue that we should retain support for wireless telephone services,[331] while others support eliminating wireless telephone services in funding year 2015.[332] As with VoIP services, eliminating support for wireless telephone service in 2015, or subjecting wireless telephone services to a separate phase out track, would provide non-wireless providers a competitive advantage over wireless providers in serving schools and libraries.

142. Some commenters argue that because the *USF/ICC Transformation Order* included voice telephony service in the definition of universal service, we are compelled to include voice telephony as an eligible service for E-rate support under sections 254(c)(3) and 254(h)(1)(B) of the Act.[333] However, as explained above, nothing in section 254(c)(1) bars the Commission from establishing different supported services for different elements of the overall Universal Service Fund, and in this Report and Order,

[328] *See, e.g.*, Broadcore NPRM Comments at 1; Carnegie Library NPRM Comments at 7-8 (supporting a tiered phase down of support for voice service only if VoIP service continues to be covered). Similarly, others urged the Commission to continue to support packet-based voice service. *See also* Sprint PN Comments at 4 (clarify that support will still be available for packet-based voice service (*e.g.*, voice over LTE or high definition voice), because this is one more application on a data network). Once the phase out of E-rate support for voice services ends, our decision will also represent a reversal of the Commission's 2009 decision to designate VoIP as an eligible service. *Schools and Libraries Universal Service Support Mechanism,* CC Docket No. 02-6, Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 6562, 6567, para. 11 (2009) (*2009 ESL Order*).

[329] *See, e.g.*, CenturyLink PN Comments at 4, 20 (if the Commission shifts E-rate support from voice services to broadband, any policy adopted should be technology neutral within services and apply equally to all voice services, including traditional voice services, VoIP, wireless, and bundled service offerings); Alaska EED NPRM Comments at 10 (if FCC phases out funding for voice services, it should maintain a level playing field and eliminate funding for VoIP voice services as well). *See also* 47 U.S.C. § 254(h)(2).

[330] *See, e.g.*, Bright House PN Comments at 7 (VoIP is widely regarded as more cost effective than traditional voice services); Chicago NPRM Reply Comments at 5 (CPS has already implemented broadband voice technology to save the District approximately $6 million each year, but has determined it cannot fully phase out the remaining voice communications services); San Diego County NPRM Comments at 4 (the convergence of voice and data now allows for increased efficiencies through VoIP).

[331] *See, e.g.*, US Cellular NPRM Comments at 6-8 (schools and libraries should choose the technologies and services they need most and there is no compelling reason to limit their flexibility); Adelphoi Education NPRM Reply Comments at 3 (cellular service is integral to education); Fox Chapel NPRM Reply Comments at 3 (opposing the removal of cellular service from the ESL); EPS NPRM Comments at 6-7 (cell phone service should be allowed for administrators and mobile employees but cellular data plans should not be allowed); WVDE NPRM Comments at 86 (there can be some justification for data plans on cell phone for administrators provided that the plans are minimal).

[332] *See, e.g.*, PAIU PN Reply Comments at 5-6; SECA PN Comments at 6-7 (agreeing that cellular services should be eliminated in funding year 2015).

[333] ITTA PN Comments at 6-7 (it is voice and not broadband connectivity that is supported by universal service funding – the Commission expressly required ETCs to offer standalone voice support as a condition of receiving universal service support); T-Mobile PN Reply Comments at 8 (agreeing with ITTA that eliminating voice funding may violate the statute). *See also USF/ICC Transformation Order*, 26 FCC Rcd at 17693, para. 80. Sections 254(c)(3) and 254(h)(1)(B) provide that the services that must be supported upon a bona fide request include the services included in the definition of universal service in addition to any other services the Commission designates for the support mechanisms for schools and libraries under section 254(h). 47 U.S.C. §§ 254(c)(3), 254(h)(1)(B).

consistent with the purpose of the E-rate program, we find that it is necessary and appropriate to phase down voice services.[334]

143. During the initial two years of the phase down of support for voice services, we direct the Bureau to study the impact of these discount reductions for voice support on E-rate recipients and to study the transition of eligible schools and libraries to VoIP services. The Bureau shall report its findings to the Commission by October 1, 2017, after completion of funding year 2016. If, at the conclusion of this study, no further action is pursued by the Commission before the application filing window opens for funding year 2018, the phase down will continue.[335]

### 2. Eliminating Support for Telephone Features, Outdated Services, and Non-Broadband Services That Do Not Facilitate High- Speed Broadband

144. Pursuant to sections 254(c)(1), (c)(3), (h)(1)(B), and (h)(2) of the Act, we eliminate support for other legacy and non-broadband services effective for funding year 2015. Our decision to stop supporting these services reverses prior Commission and USAC decisions,[336] however, we find many of these services to be important, but not essential to education, and E-rate funding is not sufficient to support these services at the risk of not being able to fund the services identified herein that advance our program goals. Within the Commission's authority under section 254 of the Communications Act to designate telecommunications and additional services rests our equal authority to withdraw services from eligibility, especially as the needs of schools and libraries evolve.[337] The record supports our decision.[338]

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[334] *See supra* paras. 72-75.

[335] *See. e.g.*, iNACOL PN Comments at 6-7 (the proposal of a three-to-five year gradual phase-out through reduced annual funding balances the need to transition the E-rate program away from voice but allows schools and libraries time to set up alternatives); EdCo PN Comments at 7 (supports a three-to-five year phase out); Alaska EED NPRM Comments at 7 (recommending a phase out of support for voice service beginning in funding year 2015 which would require applicants to pay an increasing percentage each year through funding year 2018, until they are carrying the full burden of the service without E-rate support); Boston PN Comments at 8 (generally supporting the Bureau's proposal to gradually phase down support and suggesting that schools and libraries that make the transition to broadband solutions more quickly be rewarded with the ability to use discounted rates for VoIP and other purchases during the phase down); AASA PN Comments at 4 (does not support reductions in E-rate funding for voice services but should support be reduced "it must be a gradual ramp down of support over no fewer than three years"); METLA NPRM Comments at 11 (voice and other services that do not focus on providing adequate bandwidth to schools and classrooms should be removed from the program within three to five years).

[336] Removing paging from the ESL further narrows the scope of the Commission's original decision to fund all commercially available telecommunications services. *See supra* para. 136. *See also* USAC, Schools and Libraries Eligible Services List, Funding Year 1998, CC Docket No. 96-45, http://www.usac.org/_res/documents/sl/pdf/ESL_archive/EligibleServicesList_032898.pdf, at 4 (last visited Apr. 4, 2014) (including directory assistance in the eligibility entry for plain old telephone service), citing *Frequently Asked Questions on Universal Service and the Snowe-Rockefeller-Exon-Kerrey Amendment,* Public Notice, 13 FCC Rcd 4202, at Question 6 (1997); *2009 ESL Order*, 25 FCC Rcd at 6571-72 (modifying the Commission's rules to add text messaging as an eligible service).

[337] *See* 47 U.S.C. § 254(c)(1) (defining universal service as "an evolving level of telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services"). *See supra* paras. 67-75.

[338] HP NPRM Comments at 15 (supports phasing out services that do not directly support digital learning including paging services, directory assistance, custom calling features, inside wiring maintenance plans, call blocking, 800 number services, text messaging, and cellular data plans and air cards that are not used directly for student education); LEAD NPRM Reply Comments at 9-10 (supports phasing down funding of legacy, narrowband services or others that do not support high-capacity broadband connectivity, such as paging, directory assistance, custom calling, inside wiring, call blocking 800 number, text messaging, or other services not used directly for student education).

145. Beginning in funding year 2015, we will no longer provide E-rate support for components of telephone service, outdated services such as paging and directory assistance, and services that may use broadband but do not provide it, including e-mail, voice mail, and web hosting. Applicants may continue to seek support for individual data plans and air cards, but only when they can demonstrate, consistent with our current rules, that the purchase of such services is the most cost-effective way to connect students on school premises or library locations to the Internet.

#### a. Telephone Features and Outdated Telephone Services

146. The record supports eliminating E-rate support for paging, and telephone service components such as text messaging and directory assistance beginning in funding year 2015. There is widespread agreement among commenters that paging service is largely outdated and can be retired from funding.[339] Similarly, there is agreement that the features listed as "Telephone Service Components" should no longer receive E-rate support.[340] The Telephone Service Components to be removed from the ESL are directory assistance charges, text messaging, custom calling services, direct inward dialing, 900/976 call blocking, and inside wire maintenance plans.

147. Although a few commenters argue that paging serves an educational purpose because sometimes it is the only way to reach a key staff member in an emergency,[341] other commenters asserted that paging is not really critical, and has been replaced by other services.[342] Similarly, a few commenters argue that we should continue to support text messaging because students prefer it for quick communication, and it is used for a variety of work related tasks for administrators and teachers in way that does not disrupt the classroom.[343] These are all valid assertions and, while we recognize that these services are worthy to certain applicants, we conclude that continuing to fund them diverts funding away from the high-speed broadband services that have become essential to schools and libraries.

148. Notably, those commenters recommending a longer adjustment period for the phase down of funding for voice services did not request a commensurate phase down timeline for telephone

[339] The following comments suggest that the Commission should eliminate paging, 800 services, and telephone features from the ESL: eDimension NPRM Comments at 1 (the following services may no longer be appropriate for the goals and objectives of the E-rate program: 1. Paging Services, 2. Directory Assistance, 3. Inside Wire Maintenance, 4. Call Blocking, 5. 800 Number Services, 6. All "ride-over" services); CSM NPRM Comments at 16 (our clients felt they could "make-do" with less (or no) funding for paging services, directory assistance, dial-up services, unlimited cable drops, and web hosting); CMS NPRM Comments at 12; ADTRAN NPRM Comments at 7-8; Boston NPRM Comments at 5 (agrees that paging services and directory-assistance services no longer merit funding); Frontier NPRM Reply Comments at 3; ITTA NPRM Comments at 20; CenturyLink NPRM Comments at 8; CenturyLink NPRM Reply Comments at 5 (plainly outdated services include: paging, directory assistance, dial-up, text messaging, and 800 services); GCI NPRM Comments at 14 (streamline E-rate by eliminating support for voice services and outdated services such as paging and directory assistance, and supplemental services such as custom calling features, inside wire maintenance plans, call blocking, 800 number or text messaging); HP NPRM Comments at 15; SDDOE NPRM Comments at 11 (paging has been replaced with cellular service and directory assistance is available online without charge); San Jacinto NPRM Comments at 2 (supports elimination of paging services, directory assistance, insider wire maintenance, call blocking, 800 number services and all "ride over" services); E-mpa NPRM Reply Comments at 9; XO NPRM Reply Comments at 5.

[340] *Id.*

[341] *See, e.g.*, Riverside USD NPRM Comments at 7

[342] *See, e.g.*, E-rate Central NPRM Comments at 5 (paging is no longer a critical service); SDDOE NPRM Comments at 11 (paging has been replaced with cellular service).

[343] *See* ENA NPRM Comments at 30 (opposing removal of text messaging from the ESL because "almost every student prefers text messaging for quick "advanced" communication"); Lee County NPRM Comments at 1 (text messaging is often used among support staff to communicate without disrupting the classroom); Vermont DoE NPRM Comments at 3 (text messaging is used by administrators and teachers for a variety of work related tasks).

components, or assert that a transition period would be critical for schools and libraries.[344] This is consistent with our view that a protracted phase out for telephone components is not necessary, and that these services should be eliminated from the list of those that are eligible for E-rate support beginning in funding year 2015.[345] Funding commitment data is not available for several of the telephone features we will eliminate, however, funding year 2012 commitments totaled approximately $898,045.00 for paging and text messaging.[346] Some commenters point out that removing these services will not result in sizable cost savings for the Fund.[347] However, we agree with other commenters who argue that we should eliminate support for these features and services because it will allow us to direct some additional funds towards meeting our high-speed connectivity targets without imposing undue hardship on applicants.[348]

149. We recognize that removing telephone components from the ESL in funding year 2015 will require some providers to change their billing practices or require some applicants to cost allocate the cost of those services from their requests for support.[349] However, because these services are typically provided as an add-on or enhanced services for an extra fee, they are often presented as separate line items on telephone bills. Accordingly, it should not be overly burdensome for applicants to seek funding for the voice component of the telephone service only, and provide a cost allocation for any telephone features we remove from the ESL.[350] Under the Commission's rules, if a product or service contains

[344] Chicago Public Schools, however, suggested that the Commission could consider funding text messaging at a lower percentage over a transition period of perhaps two to three years while analyzing the overall impact of elimination. Chicago NPRM Reply Comments at 6.

[345] *See* Cox NPRM Comments at 10 (supports eliminating funding for paging, email, texting and web hosting to provide more funding for broadband services); Weslaco ISD NPRM Comments at 7 (favors removing paging services from the list of eligible services because these services have little or no use in instruction and consume valuable e-rate funding that could be better used); Springfield PS NPRM Comments at 2 (reducing or eliminating funding for paging, directory assistance, calling features, text messaging, and web hosting would be beneficial in freeing more resources for basic broadband infrastructure); Barbara Nemko NPRM Comments at 1 (there is an extraordinary demand for E-rate funding; phasing out funding for services like paging and directory assistance will put those dollars to better use).

[346] *See* USAC Broadband Connectivity Data Response FY2012 and 2013 (showing that as of May 13, 2014, funding commitments for paging services totaled approximately $798,269 for 400 FRNs in funding year 2012 and funding commitments for text messaging totaled approximately $99,776 for 5 commitments in funding year 2013; these amounts likely do not capture all of the E-rate dollars associated with text messaging services).

[347] *See* Wisconsin DPI NPRM Comments at 7 (not opposed to phasing out support for some services like paging, email, and webhosting, but notes that doing so will save very little in E-rate funds); ENA NPRM Comments at 30 (the minimal cost of 800 service and text messaging challenges the value of discussing removal of these services, without review of the specific situations where they are used).

[348] *See* Cox NPRM Comments at 10 (supports eliminating funding for paging, email, texting and web hosting to provide more funding for broadband services); Weslaco ISD NPRM Comments at 7 (favors removing paging services from the list of eligible services because these services have little or no use in instruction and consume valuable e-rate funding that could be better used); Springfield PS NPRM Comments at 2 (reducing or eliminating funding for paging, directory assistance, calling features, text messaging, and web hosting would be beneficial in freeing more resources for basic broadband infrastructure); Barbara Nemko NPRM Comments at 1 (there is an extraordinary demand for E-rate funding; phasing out funding for services like paging and directory assistance will put those dollars to better use).

[349] *See, e.g.*, E-rate Central NPRM Comments at 5 (making text messaging ineligible would lead to new cost allocation issues); CRW NPRM Comments at 1 (opposes eliminating eligibility for some calling features, because the cost savings does not justify the administrative burden of requiring applicants to review all phone bills for obscure charges).

[350] *See Universal Service Third Report and Order*, 12 FCC Rcd at 26928, para. 38 (explaining that where USAC has been presented with mixed eligibility services during the application process, it "has been able to resolve the cost allocation with the school or library and service provider in a reasonable way, and avoid committing universal service support to ineligible services").

ineligible components, costs should be allocated to the extent that a clear delineation can be made between the eligible and ineligible components. The clear delineation must have a tangible basis and the price for the eligible portion must be the most cost-effective means of receiving the eligible service.[351] For telephone feature costs that are bundled with the cost of voice services, one way to determine the cost of the feature is for an applicant to seek an appropriate cost allocation from its service provider.[352] We find that the benefits of streamlining support for voice services by removing funding for these services to enable that support to be used for essential educational purposes outweigh any burdens applicants may face in the next few funding years as they adjust to these changes, which the record leads us to predict generally should be minimal.

**b. E-mail, Web Hosting, Voicemail**

150. We eliminate E-rate support for e-mail, web hosting, and voicemail beginning in funding year 2015 and delete the reference to "electronic mail services" in section 54.5.[353] As many commenters recognize, these services are applications delivered over broadband service, and do not themselves deliver high-speed broadband.[354] There is also evidence in the record that applicants seeking E-rate support for these services may not be getting the most cost-effective solutions,[355] and that some service providers package web hosting and e-mail service offerings to E-rate customers in a way that has created a risk that E-rate funds will pay for ineligible services.[356] We recognize that e-mail, web hosting and voicemail

[351] *Id.* at 26927, para. 37; 47 C.F.R. § 54.504(e)(1).

[352] A few commenters disagree with this approach, however. *See* Windstream NPRM Comments at 6 (it may make sense to eliminate support for certain services and components of voice services, but the Commission should not make it more difficult for providers to offer, and for customers to use E-Rate funding to pay for bundles that are more simple and cost effective); NCTA NPRM Comments at 10-11 (the Commission should reduce support for stand-alone voice services gradually, while continuing support for voice services that are included as part of a bundle). Applicants recently asked the Bureau for provide further guidance on the Commission's cost allocation requirements, however, the Bureau provided no additional procedures noting that although cost allocation requires some administrative effort, compliance with the requirement is relatively simple. *Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Order, 29 FCC Rcd 5457 (Wireline Comp. Bur. rel. May 23, 2014).

[353] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11332, para. 98, *see also* 47 C.F.R. § 54.5 as amended herein.

[354] *See, e.g.*, Cox NPRM Comments at 10 (eliminate funding for and web hosting to provide more funding for broadband services); Nebraska OCIO NPRM Comments at 7-8 (update the ESL by eliminating non-broadband-related applications such as: e-mail, VoIP, voicemail, web hosting); SECA PN Comments at 7 (webhosting and email services should be eliminated from funding in funding year 2015); SDDOE PN Comments at 4 ("E-rate cannot be all things to all applicants"; web hosting is not essential for broadband connectivity to and within buildings, and e-mail is an application which rides over broadband facilities); Butte County NPRM Comments at 4 (services that go beyond basic and broadband conduit access to the Internet, like e-mail services should be removed from being eligible); UEN NPRM Comments at 11 (applications that ride over the network should no longer be funded, including web hosting, email, LMS or any service that could be hosted in a cloud); Glenn County NPRM Comments at 2; Philadelphia SD NPRM Comments at 6 (email and web hosting are not fundamental to the equipment or services needed to bring communications and broadband into the classroom).

[355] *See, e.g.*, HP NPRM Comments at 15 (many no-cost options for email and web hosting are available for schools); CSM NPRM Comments at 16 (our clients could "make-do" with less (or no) funding for web hosting and a few indicated that they could move more services to the cloud and do away with expensive servers and hosted email services, when there are less costly options available).

[356] *See, e.g.*, Philadelphia SD NPRM Comments at 6 (many service providers offer blended solutions to the extent that cost allocation has become hypothetical at best); HP NPRM Comments at 15 (tighten the definitions of email and web hosting services to assure that funding is going explicitly to eligible services, and not bundling components such as content management and portals); Pioneer NPRM Reply Comments at 3 (supports eliminating web hosting as an eligible service, because web hosting may contain many ineligible components); Blackboard Engage NPRM Comments at 9,10 (suggesting several policy changes to provide more transparency of web hosting offerings);

(continued…)

services may be important services for the day-to-day operations of many schools and libraries and that some of them have come to rely on E-rate support for those services.[357] However, continuing to fund these services diverts E-rate funding away from essential high-speed broadband services.[358] Therefore, removing E-rate support for e-mail, web hosting, and voicemail services aligns with our restructuring of the E-rate program under section 254.

### c. Data Plans and Air Cards for Mobile Devices

151. Data plans and air cards for mobile devices will continue to be eligible for E-rate support only in instances when the school or library seeking support demonstrates that individual data plans are the most cost-effective option for providing internal broadband access for portable mobile devices at schools and libraries. We agree with commenters that it is generally not cost effective for applicants to purchase on-campus use individual data plans that provide service on a one plan per-device basis when a school or library has robust internal wireless networks that provide Internet connectivity to multiple devices within a school or library.[359] Some commenters also contend that these individual data plan

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Riverside USD NPRM Comments at 7 (web hosting vendors are creating ways that they can increase their profit margin at the expense of E-rate applicants and will continue to do so if not controlled); CRW NPRM Comments at 1-2 (eliminate web hosting because it has gone way beyond the original intent of funding bandwidth).

[357] *See, e.g.*, Riverside USD NPRM Comments at 7 (e-mail services are so depended upon now that losing that service would create unneeded stress and cloud based services are not always free to districts and libraries); New Hope NPRM Comments at 2 (a budget is finite and increasing a school district's costs by eliminating discounts on essential services such as telecommunications, email and web hosting will negatively affect its ability to fund its share of infrastructure projects); Intrafinity NPRM Comments at 3, 5 (web hosting and email service are used as a gateway for other forms of educational technology, and allow teachers to use cutting edge learning and communications systems within the classroom, throughout the schools, and across the entire community; funding cuts mean that smaller, rural and less affluent schools will be forced to make do with lower quality services that will require a greater commitment in terms of staff and resources than they are able to afford); WVDE NPRM Comments at 43 (West Virginia schools reached a consensus that services, such as web hosting, email, maintenance of internal connects, are first-priority services); CenturyLink NPRM Reply Comments at 5 ("ride over" services have value: e-mail, web hosting, and similar services should continue to receive support); XO NPRM Reply Comments at 5; Windstream NPRM Comments at 5-6; eChalk NPRM Reply Comments at 1-3; Schoolwires NPRM Comments at 11; Schoolwires NPRM Reply Comments at 11-12; eBackpack NPRM Comments at 2; Gaggle NPRM Comments at 2-6; ENA NPRM Comments at 30 (opposes removal of e-mail, given its expanded use for assignments, updates, etc., although there should be guidelines to control costs).

[358] *See* USAC Broadband Connectivity Data Response FY2012 and 2013 (showing that funding commitments for e-mail totaled approximately $11,905,255 for 1425 FRNs in funding year 2012, funding commitments for web hosting totaled approximately $31,804,182 for 6615 commitments in funding year 2012, and funding commitments for voice mail totaled approximately $506,228 for 58 commitments in funding year 2012; these commitment amounts likely do not capture all of the E-rate dollars associated with requests for these services and do not reflect the dollars associated with the internal connections equipment required for these services).

[359] Permitting applicants to seek funding for individual data plans for mobile devices without boundaries or limitations has been costly for the fund. *See* USAC Broadband Connectivity Data Response FY2012 and 2013; *see also* EPS NPRM Comments at 6-7 (cellular data plans should not be allowed because they are not cost-effective; wireless access points, whether applicant owned or provider owned are more cost-effective); Springfield PS NPRM Comments at 2 (reducing or eliminating funding for cellular data services being used to support one-to-one student devices would be appropriate given that this is a very costly way to provide one-to-one); SDDOE NPRM Comments at 13 (air cards are a costly substitute for wireless Internet, an inefficient way to obtain connectivity, duplicative of wired Internet connectivity, and should not be supported by E-rate); Weslaco ISD NPRM Comments at 8; HP NPRM Comments at 15; CenturyLink NPRM Comments at 10-11 (support for cellular data plans and air cards can readily be capped or discontinued; these services are costly compared to wireline services offerings likely already available and are prone to waste, fraud, and abuse); ESPA NPRM Comments at 12; TIES NPRM Comments at 3 (phase out cellular phones and air cards – personal use allocation is a nightmare); ITTA NPRM Comments at 20 (cellular data plans and air cards could be phased out through gradual reductions in support over a reasonable time
(continued…)

services generally do not provide users with enough high-speed connectivity to access certain educational and informational materials.[360]

152. Some schools and libraries already have wireless networks that support one-to-one device initiatives. Moreover, with the increased availability of E-rate funds as a result of our decisions in this Report and Order, many more will be able to install high-speed internal broadband networks to support one-to-one learning programs in schools and reliable public Internet access in libraries. We consider funding for individual data plans or air cards for individual users to be not cost effective when those users can already access the Internet through internal wireless broadband networks on wireless-enabled devices without the help of stand-alone data plans or air cards.[361] In general (i.e., assuming no showing of cost effectiveness), for applicants that receive data plans bundled with voice, only the voice services in the plan will remain eligible for funding in accordance with the phase down reductions we implement above; the applicant must remove from its funding request the costs associated with all other services in a bundled plan that are ineligible.

153. We recognize that there are a few locales where WLANs are impracticable or difficult to install, such as library bookmobiles. There may also be some schools or libraries where installation of a wireless network is possible but would be more costly than using individual data plans because the school or library location serves a very small number of students or patrons.[362] Therefore, we will allow applicants to seek funding for individual data plans where the applicant is able to demonstrate that individual data plans are the most cost-effective option for providing internal broadband access for mobile devices. In order to ensure that individual data plans are the most cost-effective option, applicants that seek funding for individual data plans must be able to demonstrate either that installing a WLAN is not physically possible, or must provide a comparison of the costs to implement an individual data plan solution versus a wireless local area network solution. The cost comparison may be established through the competitive bidding process by seeking and comparing bids on both internal wireless networks and individual data plans.[363] Applicants should be prepared to demonstrate to the Commission and USAC that individual data plans are the most cost-effective option for their situation by submitting the cost comparison information upon request.

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period). *But see* Sprint NPRM Comments at 17; Merit NPRM Comments at 8 (cellular data plans and air cards may be the only feasible or cost-effective option for some extremely rural applicants); Verizon NPRM Comments at 17.

[360] *See, e.g.*, WVDE NPRM Comments at 47, 85 (services like air cards should be phased out or considered at a lower priority because they only provide limited access to bandwidth; several districts in West Virginia do not get E-Rate funding on their cell phones due to the complexity of cost-allocation, and some districts do not have access to reliable, widespread cell service); ADTRAN NPRM Comments at 7-8 (air cards are among the services that do not support the primary goal of high-capacity broadband connectivity to and within schools).

[361] *See* 47 C.F.R. § 54.511(a). *See also Request for Review by Macomb Intermediate School District Technology Consortium of the Decision of the Universal Service Administrator*, CC Docket No. 02-6, Order, 22 FCC Rcd 8771, 8774, paras. 6-9 (2007) (applicants must select the most cost-effective service offering).

[362] *See, e.g.*, EIN NPRM Comments at 2 (supports the use of air cards off-campus for library outreach, bookmobile services, and "pop-up" locations where more traditional broadband access is not available); Scranton Public Library NPRM Comments at 2 (air cards are the only way to provide an Internet connection to circulate materials to patrons and the library uses mobile devices to register for programs that take place in locales outside the library, such as at a park); Philadelphia NPRM Reply Comments at 3-4 (the library uses 3G/4G cell service to bring several initiatives to areas of the Philadelphia that are bereft of public Wi-Fi and public computing resources); Iowa DOE NPRM Comments at 7 (data plans and air cards may be costly services, but there are circumstances where E-rate funding for such plans is essential); Carnegie Library NPRM Comments at 4; Arkansas NPRM Comments at 18.

[363] "In determining which service offering is the most cost-effective, entities may consider relevant factors other than the pre-discount prices submitted by the providers, but price should be the primary factor considered." 47 C.F.R. § 54.511(a).

### 3. Impact on Multiyear Contracts

154. In response to commenters asking that we permit funding for phased-out services until multi-year contracts expire for those services, we decline to provide exceptions or allow "grandfathering" for multi-year contracts.[364] This decision will simplify the elimination of funding for these components and services for applicants and for USAC, and is consistent with our need to transition funding in the program to high-speed broadband without undue delay. Although the Commission permits applicants to enter into multi-year contracts for eligible services,[365] the Commission has never adopted a rule insulating applicants and service providers from changes in program rules simply because a multi-year contract was utilized.[366]

## V. MAXIMIZING THE COST-EFFECTIVENESS OF SPENDING FOR E-RATE SUPPORTED PURCHASES

155. To maximize the cost-effectiveness of spending for E-rate supported services, we focus in this section on driving down costs for the services and equipment needed to deliver high-speed broadband connectivity to and within schools and libraries. There is widespread agreement in the record about the importance of encouraging cost-effective purchasing in the E-rate program.[367] Every dollar spent inefficiently for E-rate supported services is one less dollar available to meet schools' and libraries' broadband connectivity needs.

156. Moreover, there appears to be substantial room for improvement in E-rate-supported purchasing. Although E-rate applicants are required to seek competitive bids for E-rate supported services and to select the most cost-effective bid they receive,[368] there remain large variations in the amount of money spent on similar services. Some variation is to be expected due to differences in local needs and conditions, such as between large urban schools and small rural schools. However, pre-discount prices also vary in ways that are unexpected. For instance, prices paid for telecommunications and Internet access in urban areas are often higher than those in rural areas.[369] This is the opposite of what we would generally expect, given that the economies of scale and distance should generally make

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[364] *See, e.g.*, Imperial County NPRM Comments at 7, 10 (email and web hosting (which go beyond basic access to the Internet), should be deemed ineligible but multi-year service agreements should be grandfathered without any allowable extensions); Alaska EED NPRM Comments at 7 (certain services that go beyond basic conduit access to the internet, such as web hosting (and its collaborative tools) and e-mail service and should be removed from the ESL; if under contract, these should be funded until the contract expires).

[365] *Universal Service First Report and Order*, 12 FCC Rcd at 9062, para. 544.

[366] *Petition for Waiver by Sprint Corporation*, CC Docket No. 02-06, Order, 22 FCC Rcd 5353, 5355 (Wireline Comp. Bur. 2007). The E-rate program is funded on a year-to-year basis and, thus, an applicant has no guarantee that a multi-year contract will continue to be funded for the duration of the contract. *Universal Service First Report and Order,* 12 FCC Rcd at 9062, para. 544 (the administrator will only commit funds to cover the portion of a long term contract that is scheduled to be delivered and installed during the funding year). *See also* 47 C.F.R. § 54.507(e)(2011). *See also Omnia Commercial Co. v. U.S.*, 261 U.S. 502 (1923) (finding that government actions that only incidentally interfere with performance of private contracts—rather than targeting them directly—constitute but a "frustration," not a taking, of those contract rights).

[367] *See, e.g.*, ALA NPRM Comments at 23-27; Connected Nation NPRM Comments at 16-18; NASUCA NPRM Comments at 11.

[368] *See* 47 C.F.R. §§ 54.503, 54.511.

[369] *See* Submission for the Record from Funds For Learning, FY2013 E-rate Funding Requests: Telecommunications and Internet Access by Schools & School Districts, CC Docket No. 02-6, at 8-9 (filed July 3, 2013) (finding average rates of $67.88 in urban areas, compared with rates averaging below $50 in suburban areas and averaging $65.35 in the "rural: distant" areas).

broadband deployment more expensive to smaller districts in rural America.[370] In major metropolitan areas, the quartile of schools paying the most for 100 Mbps of Internet access services pays nearly three times more than the quartile paying the least and the quartile paying the most for 1 Gbps WAN connections pays nearly four times more than the quartile paying the least.[371] Even in the same state, prices for rural broadband services can vary widely. For example, the Idaho Commission for Libraries explains that prices range from \$3.33/Mbps/month to \$397.56/Mbps/month in its state's rural libraries,[372] while ALA notes that the cost for a T1 line can vary from a few hundred dollars to more than two thousand dollars per month in Pennsylvania.[373]

157. This variation suggests there is more we can do to drive down prices for E-rate services. It also suggests that applicants need more information about purchasing decisions. Therefore, in this section, we adopt changes to increase pricing transparency, encourage consortium purchasing and amend our LCP rule to clarify that potential service providers must offer eligible schools, libraries and consortia the LCP.

### A. Increasing Pricing Transparency

158. To assist schools and libraries in finding the best prices for E-rate supported services, we adopt transparency requirements for E-rate recipients and vendors beginning in funding year 2015. We agree with those commenters who argue that transparency is an essential tool to help applicants make educated buying decisions.[374] Transparent pricing will give schools and libraries greater visibility into pricing and technology choices for their peers, which we expect will help applicants in negotiations with equipment and service providers.[375]

159. Shining a light on prices paid for E-rate supported services will help the Commission and third parties ensure that variations in prices paid are in accordance with the program rules and that schools

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[370] *See, e.g.*, Illinois Library NPRM Comments at 2 (rural participants often have the greatest broadband costs and availability challenges); Vermont DOL NPRM Comments at 2 (last-mile connection costs are high in rural areas).

[371] *See* EdSuperHighway White Paper Ex Parte at Chart 20a and 20b.

[372] *See* Ann Joslin NPRM Reply Comments at 3.

[373] Letter from Marijke Visser, Assistant Director, Office for Information Technology Policy, American Library Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 1 (filed Feb. 27, 2014).

[374] *See, e.g.*, AASA PN Comments at 4 (stating that price transparency will empower local school and library leaders); Benton NPRM Reply Comments at 8-9 (finding this will help administrators make smarter decisions); CETF PN Comments at 15-16 (noting transparency will assist FCC and applicants in knowing whether they are getting reasonable prices); New America NPRM Reply Comments at 17-20 (stating that pricing transparency "would substantially benefit schools and libraries"); EdSuperHighway NPRM Reply Comments at 3 (arguing "there is widespread agreement among commenters that the Commission should release and make searchable currently collected E-rate application information, including Form 471 Item 21 attachments"); Wisconsin DPI NPRM Comments at 11-12 (stating there is a "need to have public access to Item 21 information"); KSDE NPRM Comments at 6-7; METLA NPRM Comments at 28-29 ("the public should be allowed to view Item 21 information"); New Hope NPRM Comments at 4 (placing Item 21s online "would greatly assist applicants in ensuring they are receiving LCP"); E-rate Central NPRM Comments at 7 (supporting making Item 21s publicly available); NEA PN Comments at 8 (supporting greater data transparency).

[375] *See, e.g.*, Connected Nation NPRM Comments at 27-28; EdSuperHighway NPRM Comments at 13; New America NPRM Comments at 23 (arguing transparency would lead to comparisons, informed decisions, and greater accountability to self-assess the quality of service offerings); Blackboard Engage NPRM Comments at 4; LEAD NPRM Comments at 9; CoSN PN Comments at 3-4 (stating that more transparency is "critically needed…to enable wise purchasing decisions"); METLA PN Comments at 10 (stating transparency "will be instrumental in driving and keeping prices down"); *see also* EdSuperHighway White Paper Ex Parte, Attached White Paper at 2 (filed Apr. 10, 2014) (stating inefficient procurement may be caused by a lack of price transparency).

and libraries are purchasing E-rate supported services cost effectively.[376] As several commenters explain, the public should have a simple method to ensure that their students are getting the high-speed connectivity needed for digital learning at the lowest price.[377] Making the pricing data publicly available will also improve analyses performed by the Commission, state coordinators, and third parties regarding the program's effectiveness and whether more needs to be done to improve cost-efficient purchasing by schools and libraries.[378] Finally, pricing transparency will help third parties identify best practices for purchasing and reduce waste across the program.[379]

160. Therefore, to increase pricing transparency in the E-rate program, we will make information regarding the specific services and equipment purchased by schools and libraries, as well as their line item costs, publicly available on USAC's website for funding year 2015 and beyond. This information is currently collected on FCC Form 471, Block 5, Item 21 ("Item 21s").[380] In addition, we agree with commenters that the information contained in the Item 21s should be standardized to provide meaningful information that is easy to compare across applications.[381] We delegate authority to the Bureau to revise and oversee form standardization, while directing the Bureau to be mindful of the need to keep all forms as simple as possible in light of our goal of streamlining administration of the program. Because pricing and purchasing information will be of greatest benefit if it is available in electronic, searchable forms,[382] we also direct OMD to work with USAC to ensure ready availability of the

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[376] *See, e.g.*, Connected Nation NPRM Comments at 27-28 (in addition to other benefits, information on pricing will make compliance with Commission rules easier to implements); CoSN PN Comments at 3 (finding transparency is "critically needed" to enable wise purchasing and ensure services are offered at the best prices); New America PN Comments at 22 (pricing data will enable better enforcement of program rules).

[377] *See, e.g.*, New America NPRM Comments at 24 (saying "[g]reater transparency can give schools, libraries, and their communities greater agency to be involved in oversight of the E-rate program"); SETDA PN Comments at 5 (arguing "data on program participant experiences and operations [should] be readily accessible and open to review by researchers, policymakers, program participants, and the public"); Alliance PN Comments at 5 (supporting transparency for citizens to monitor their schools and libraries); Blackboard Engage PN Comments at 4-5 (supporting transparency to promote accountability).

[378] *See, e.g.*, Benton NPRM Reply Comments at 9 (finding third parties can help with program assessment); Connected Nation NPRM Comments at 27-28 (encouraging further data analysis); SETDA NPRM Comments at 20 (transparency will educate applicants and providers, but also "facilitate the conduct of special studies and analysis… to identify best practices.").

[379] *See, e.g.*, BIA/BIE NPRM Comments at 7 (saying "[t]ransparency breeds honesty, lower prices, and an open approach to the E-Rate process"); HP NPRM Comments at 16 (stating that public knowledge of winning bid should help reduce fraud and abuse); SETDA PN Comments at 5 (noting that data analysis of open data sets can help flag potential waste, fraud, and abuse). Price transparency may also lead to stricter adherence to the lowest corresponding price rule. *See* SHLB NPRM Comments at 9.

[380] *See* USAC, Schools and Libraries, Item 21, http://www.universalservice.org/sl/applicants/step04/item-21.aspx (last visited June 18, 2014). USAC has not publicly disclosed this data in the past. We recognize that disclosure of this information will require changes to USAC's technology platforms. As such, while the data will be considered public, there may be a practical delay in making the information available to the public.

[381] *See, e.g.*, California DOE PN Comments at 8 (recommending a system of collecting speed and cost information in Item 21s); New America PN Comments at 23-26 (making suggestions for streamlining the information collection); Nebraska OCIO PN Comments at 10 (suggesting specific modifications to standardize Item 21 data for publication).

[382] *See, e.g.*, ALA NPRM Comments at 24; Philadelphia NPRM Comments at 4-5; NYCDOE NPRM Comments at 6 (supporting use of a true electronic filing system); SECA NPRM Comments at 41; LAUSD NPRM Comments at 15 (stating that there are far too many items, like Item 21s, submitted on paper, fax or email); SC K-12 Initiative NPRM Comments at 6 (Item 21s need more detailed information).

information in these forms, such as through publicly available APIs and/or bulk data files posted on USAC's website.[383]

161. A few commenters express concern that a state law, local rule, or an existing long-term contract may explicitly prohibit pricing disclosure.[384] In light of these concerns, we will allow applicants to opt out of making pricing data public where such applicants can certify and cite to a specific statute, rule, or other restriction barring publication of the purchasing price data, such as a court order or a contract in existence prior to adoption of this order. Applicants making this certification shall retain necessary documentation to demonstrate the restriction in the event of a Program Integrity Assurance (PIA) review or audit. Contracts executed after the effective date of this Report and Order, however, may not contain such restrictions, and any such restrictions will have no effect.

162. We recognize the arguments of some commenters that price transparency increases the risk of anti-competitive behavior by service providers.[385] It is true that in certain market conditions, publication of prices can raise the risk of collusion or price harmonization. But given the level of public scrutiny of the E-rate program, we think price transparency will shine a light on any anti-competitive behavior.[386] Moreover, the benefits to applicants from better pricing information are likely to outweigh any increased risks of collusion or price harmonization among providers. As many commenters note, some pricing information is already publicly available through state master contracts and state public records laws in a piecemeal fashion – a state of affairs that carries most of the collusion risks of broader publication with many fewer benefits.[387] Sophisticated vendors interested in their competitors' pricing are most likely to be able to avail themselves of public records laws, while individual school and library applicants are less likely to have the practical ability to navigate these processes. In contrast, centralized, easily accessible data about pricing for purchased services will be more useful for applicants and program oversight, while doing little to increase the risk of collusion. For all these reasons, on balance, we conclude that increasing pricing transparency is likely to increase competition and drive down prices.

163. Some commenters also argue that transparency will reduce the number of vendors competing to provide E-rate supported services because vendors will leave the program rather than allow their prices to be made public.[388] Again, we are not persuaded. As described above, in many states pricing information is already publicly available in some fashion, and there is no evidence in the record that this has lowered participation in those states.[389] Moreover, schools and libraries, like all community anchor institutions, are valuable customers.[390] Indeed, greater pricing transparency should help those

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[383] *See also infra* section VI.F.4.

[384] *See, e.g.*, HP PN Comments at 9 (noting that some state laws or contracts prohibit sharing); MCTC PN Comments at 5 (explaining that pricing from the State Master Contract for 250, 500, and 1000 Mbps is sealed under a Hinds County Mississippi court order); ITTA NPRM Comments at 13; WVDE NPRM Comments at 76 (suggesting that posting pricing information could violate contractual requirements that prohibit price sharing).

[385] *See, e.g.*, eChalk NPRM Comments at 4 (arguing that "competition would suffer if vendors were allowed to see each other's pricing"); Sprint NPRM Comments at 16 (suggesting that "there is a risk that publicly posting rate information could… facilitate price fixing or coordinated pricing").

[386] *See, e.g.*, Clark County NPRM Comments at 17-18; On-Tech Consulting Reply NPRM Comments at 16 (stating that "secrecy of pricing is inherently anti-competitive").

[387] *See, e.g.*, AT&T NPRM Comments at 12; ITTA NPRM Comments at 12; Verizon NPRM Comments at 23; Blackboard Engage NPRM Comments at 4-8.

[388] *See, e.g.*, SECA NPRM Comments at 41-42.

[389] *See, e.g.*, AT&T NPRM Comments at 12; ITTA NPRM Comments at 12; Verizon NPRM Comments at 23; Blackboard Engage NPRM Comments at 4-8.

[390] *See, e.g.*, NTCA/WTA NPRM Comments at 3 (stating that schools and libraries are "among the largest potential customers in any rural community").

vendors offering the best prices attract market interest in their services and equipment, which should help foster a competitive marketplace.[391]

164. We also disagree with the argument that school districts and libraries will find pricing information too confusing to be useful.[392] As many commenters note, individual school districts or libraries often have unique characteristics that make the prices available to them lower or higher than national or regional averages.[393] For example, as explained above, small rural schools may legitimately face higher prices for broadband connectivity than large urban schools because of their distance from the nearest fiber, the dearth of other broadband customers in their immediate vicinity, and lack of competitive options.[394] But E-rate applicants are already required to make judgments regarding the costs of proposed services.[395] To the extent a school or library arms itself with price information from its peers and requests a price that a vendor believes is unreasonably low for some equipment or service, we are confident that the vendor will be appropriately incented to explain any unique circumstances that justify its higher price. In sum, even acknowledging that applicants will face varying circumstances that affect the prices available to them, we find that transparency will aid applicants in making smarter spending judgments in accordance with their obligation to select cost-effective services.[396]

165. Although we require publication of prices for goods and services purchased by applicants, we decline at this time to require public disclosure of other pricing information, including available pricing from service providers or bid responses.[397] Many commenters argue that submitting bid information is burdensome, and the goods and services selected by applicants should represent the most cost-effective solution for their needs following a competitive bidding process, with price as the primary factor.[398] Therefore, we are persuaded that the current burden to applicants of submitting comprehensive bid information to USAC outweighs any incremental benefit to the public from the publication of prices for non-winning bids, which, by definition, were not the most cost-effective choice. At the same time, we take this opportunity to remind applicants and vendors that they are responsible for the retention of all documents related to their applications, including bids submitted in response to a solicitation, in accordance with our rules.[399] Applicants still may be required to provide all bid responses during PIA review of an application or during an audit.

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[391] *See, e.g.*, iNACOL PN Comments at 5-6 (stating a "more transparent and open process can help curb costs by increasing competitiveness and improving the leverage of schools and libraries."); Public Interest NPRM Reply Comments at 5-6 (providing transparency will encourage, rather than inhibit competition).

[392] *See, e.g.*, AT&T NPRM Comments at 12 (misleading because prices are customized to each arrangement); Cbeyond NPRM Reply Comments at 14 (varies based on type and volume of services, length of contract, state market, and customer's location relative to the network); Sprint NPRM Comments at 15 (information can be misinterpreted without context); USTA NPRM Comments at 14 (there are many variables); XO NPRM Reply Comments at 8-9 (price lists are useless without additional information); Verizon NPRM Comments at 23 (customers have varying needs).

[393] *See, e.g.*, MOREnet NPRM Comments at 9 (pricing about California will not be relevant to Missouri).

[394] *See supra* n.369.

[395] *See* 47 C.F.R. §§ 54.503(c)(2)(vii), 54.511(a).

[396] *See, e.g.*, 21st Century Skills PN Comments at 4 (benefits of transparency can be achieved despite unique circumstances).

[397] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11355, paras. 194-95.

[398] *See, e.g.*, CenturyLink NPRM Comments at 19 (publishing unsuccessful bids will discourage providers from providing their best bids in some cases); ENA NPRM Comments at 55-56 (creating an additional FCC reporting requirement will be time consuming); SDDOE NPRM Comments at 23 (publishing bidding information is onerous and will not improve pricing).

[399] *See infra* section VI.G.1.

166. We also decline to require disclosure of pricing information for past funding years. Pricing information on Item 21s has not been published in the past, and the Commission has redacted pricing information from Freedom of Information Act responses at the request of service providers claiming it was proprietary information. Given stakeholders' expectations when prior-year applications were submitted, we will continue to treat recent Item 21 information as potentially sensitive for funding year 2014 and before. However, this Report and Order serves as notice to all service providers that the receipt of E-rate support will be conditioned on disclosure of this pricing information beginning in funding year 2015.[400]

167. Finally, we terminate the program the Commission created in the *Second Report and Order* testing an online list of internal connections equipment eligible for discounts.[401] USAC no longer updates the database in part because of the burdens it placed on USAC and vendors.[402] Meanwhile, the publication of pricing data as provided above will provide a less burdensome and more accurate representation of the goods and services being purchased by applicants with E-rate support, as well as the prices paid. We received no comments objecting to termination of the eligible products database.

## B. Encouraging Consortia and Bulk Purchasing

168. Consortium purchasing can drive down the prices paid by schools and libraries for E-rate supported services. In this section, we reduce or eliminate some of the existing barriers to applicants' participation in consortia. As an initial matter, we direct Commission staff to work with USAC to prioritize review of consortia applications. We also adopt rules to make it easier for applicants to take advantage of consortium bidding and clarify some apparent misconceptions about consortia participation. In response to concerns raised by E-rate applicants about the current method for allocating E-rate support among members of an E-rate consortium, in the accompanying FNPRM, we propose to amend the way consortia determine the amount of support to be received by their members to ensure that E-rate applicants that choose to join a consortium do not risk receiving less support, and seek comment on other ways to encourage consortium purchasing.

### 1. Speeding Review of Consortium Applications

169. In order to address applicants' complaints that consortia applications have historically received reviews late in the application review process,[403] we direct OMD and the Bureau, working with USAC, to prioritize application review for state and regional consortia applicants. OMD and USAC have already undertaken an initiative to speed review of all E-rate applications, with a particular focus on broadband applications.[404] We applaud that work and want to build on the positive results, particularly with respect to state and regional consortia applications. We expect that the improved processing times

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[400] We note the limited exception for the continuation of existing multi-year contracts that is outlined above. *See supra* para. 161.

[401] *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, 9213-15, paras. 31-37 (2003) (*Second Report and Order*).

[402] *E-rate Modernization NPRM*, 28 FCC Rcd at 11356, para. 198.

[403] *See, e.g.*, EdCo NPRM Comments at 20 (ensure that consortium applications take no longer than non-consortium applications to process); FFL NPRM Comments at 48 (it takes an average of 160 days to process standard consortium applications); NASCIO NPRM Comments at 2-3 (prioritize consortium applications); Florida DMS NPRM Comments at 11 (prioritize consortia applications and applications for services provided through state master contracts); SCG NPRM Reply Comments at 10 (prioritize consortia application processing).

[404] *See* Federal Communications Commission, E-rate Program Commits over $450 Million in Funding for Broadband in Schools and Libraries, http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0508/DOC-326979A1.pdf (May 8, 2014).

for consortia applications will result in more funding commitments flowing faster to schools and libraries, which will motivate more applicants to join consortia in future funding years.[405]

### 2. Preferred Master Contracts

170. To further encourage applicants to take advantage of bulk buying opportunities, we delegate authority to the Bureau to designate preferred master contracts for category two equipment. The Bureau may make such a designation for the purpose of (a) exempting the preferred master contract from the FCC Form 470 filing requirement and (b) requiring applicants to include the preferred master contract in their bid evaluations even if the master contract is not submitted as a bid in response to the applicant's FCC Form 470. The Bureau has authority to institute either one or both of these exceptions for a preferred master contract and must re-evaluate its decision to designate a contract as a preferred master contract every two funding years.

171. We authorize the Bureau to designate a master contract as a preferred master contract if it offers eligible entities nationwide the opportunity to obtain excellent pricing for category two services as reported on FCC Form 471. National availability of the equipment offered on a preferred master contract will ensure that all E-rate applicants have the opportunity to take advantage of its pricing.

172. We limit preferred master contracts to equipment used in category two internal connections at this time. Commodities such as the equipment used in internal connections lend themselves to bulk purchasing arrangements, and can be shipped nationwide. The more varied nature of services, such as broadband services and internal connection installation services, makes implementing bulk purchase arrangements more complicated. We therefore choose not to authorize the designation of preferred master contracts for such services at this time.

173. We agree with commenters who support national bulk buying opportunities because of the unmatched economy of scale national purchasing allows.[406] In order to help ensure such scale (and thus maximize the benefit to applicants and the E-rate program), we authorize the Bureau to limit the number of master contracts it designates as preferred. Recognizing, however, that E-rate applicants may still be able to negotiate better pricing from vendors not associated with a preferred master contract, we decline to require applicants to purchase services from a preferred master contract at this time.[407]

#### a. FCC Form 470 Exception

174. Allowing applicants to take internal connections equipment from a preferred master contract without filing an FCC Form 470 will ease the administrative burden on applicants without compromising cost-effectiveness. Several commenters encouraged us to eliminate the FCC Form 470 filing requirement for certain master contracts because of the administrative burdens associated with

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[405] Elsewhere in this Order, we adopt a requirement that school districts calculate their E-rate discounts on a district-wide basis. *See infra* section VI.B.1. Requiring district-wide discounts will expedite the processing of consortium applications that include school districts because USAC will only need to verify the discount rate for the districts within a consortium, not the discount rate for each school in the consortium.

[406] *See, e.g.*, Steven Kaplan PN Comments at 8 (create cost-effective solutions for schools and libraries through government vetted national contracts for goods and services); EdSuperHighway NPRM Reply Comments at 14 (experiment with bulk buying opportunities at either a state or national level to maximize the impact of internal connections funding); NASCIO NPRM Comments at 4 (promote national purchasing vehicles and team with existing entities that have bulk purchasing experience to create them).

[407] *See* ENA NPRM Comments at 53 (discouraging the Commission from implementing a national bulk buying program but arguing that, if it does, other purchasing options should still be permitted). *See also* EdCo NPRM Reply Comments at 13 (do not mandate consortium participation); Knox County NPRM Comments at 12-13 (applicants should have discretion on whether to use master contracts); METLA NPRM Comments at 27 (there should never be a requirement that applicants use a state master contract).

competitive bidding.[408] Although competitive bidding is vital to limiting waste and ensuring that services are provided at the lowest possible rates,[409] in the limited case of equipment available on a preferred master contract, we find that it is not necessary for applicants to file an FCC Form 470 because the terms of the preferred master contract assure us that applicants will receive the best possible pricing on the services they order. We cannot at this time exempt master contracts that are not preferred master contracts from any competitive bidding requirements because we do not have the same assurances with respect to pricing for all master contracts.

175. Applicants who wish to take services from a preferred master contract without filing an FCC Form 470 would indicate on their FCC Form 471 that they are purchasing services from a preferred master contract instead of citing to an FCC Form 470.

#### b. Bid Evaluation Requirement

176. Requiring applicants to include preferred master contracts in bid evaluations helps ensure that applicants make cost-effective purchases while enabling them to select the services that best suit their needs.[410] Applicants will only be required to include equipment available on a preferred master contract in their bid evaluations if it is the same equipment the applicant sought on its FCC Form 470. Applicants would still have the ability to select bids submitted by service providers in response to the FCC Forms 470, as long as the applicants' evaluation treats the price of eligible equipment as the primary factor in bid selection and the selected bid is the most cost-effective.[411]

### 3. Authority to Seek Consortium Bids

177. To further increase cost-effective purchasing by applicants, we next amend our rules to permit a consortium lead to identify on its consortium's FCC Form 470 the schools, school districts and libraries for which it has authority to seek competitive bids for E-rate eligible services even if it does not have authority to order services for those entities. Our rules currently require the FCC Forms 470 and FCC Forms 471 be signed by a person authorized to order eligible services for the applicants[412] and do not distinguish between authority for E-rate consortium leads to seek bids and authority for consortium leads to purchase the services.[413] As a result, consortium members who are unwilling to cede authority to purchase E-rate eligible services to the consortium lead release their own FCC Form 470 and likely do not attract the number of competitively priced bids, if any, from competitive vendors. By aggregating potential demand in the bidding process, and using the FCC Form 470 process to attract bidders, a consortium can drive down the price of eligible services even for its members who wish to order services on their own. This rule change will take effect for funding year 2015. Our rules will continue to permit consortium leads to purchase services on behalf of some or all of their members and we encourage consortium leads to seek both forms of authorization, as appropriate.

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[408] *See, e.g.*, SECA NPRM Comments at 38 (exempt state contracts from competitive bidding rules, even if no FCC Form 470 was filed for them); CRW NPRM Comments at 3-4 (allow applicants to take from state master contracts without filing an FCC Form 470).

[409] *Schools and Libraries Fourth Order on Reconsideration*, 13 FCC Rcd at 5425-26, para. 185.

[410] *See* METLA NPRM Comments at 23 (require that districts compare pricing with a consortium or state master contract before awarding a bid).

[411] *See* 47 C.F.R. § 54.511(a).

[412] *See* 47 C.F.R. §§ 54.503(c)(2) and 54.501(a)(1).

[413] *See Request for Waiver of the Decision of the Universal Service Administrator by Kan-ed, Kansas Board of Regents*, CC Docket No. 02-6, Order, 21 FCC Rcd 13658, 13659, para. 3 (Wireline Comp. Bur. 2006) (*Kan-ed Order*) (discussing a consortium lead's authority to file an application on behalf of consortium members without addressing authority to seek bids on behalf of consortium members).

### 4. Correcting Misconceptions

178. We also take this opportunity to correct misconceptions about consortia applications that appear to have prevented some applicants from joining consortia, and to remind applicants and service providers about already-existing rules that should work to encourage participation in consortia. We remind applicants that E-rate rules do not require a consortium to solicit or select a single vendor to provide service to all consortium members and that applicants can authorize a consortium lead to act on their behalf for multiple years.

179. *Consortia selection of multiple service providers.* Some commenters argue that consortia purchasing may actually increase prices by excluding smaller service providers who are not able to serve the full needs of a consortium.[414] In light of these comments, we remind all stakeholders that consortia do not need to solicit or select a single vendor able to provide service to all members of a consortium. Rather, a consortium may invite vendors to bid on services to a subset of consortia members, and may find that a combination of different service providers offer the most cost-effective solution for consortium members. Even though a larger service provider may enjoy economies of scale and scope, it will not necessarily be able to provide competitively priced service in every area in which a consortium's members are located. Therefore, consortia applicants should make clear in their FCC Forms 470 and any associated RFPs that they are not required to select a single provider that can meet the needs of all members. While some consortia select a single service provider, many others select a combination of service providers to meet the needs of their consortium members.[415] In light of the apparent confusion on this issue, we direct USAC to remind applicants and vendors, during USAC training and other outreach, that consortia can solicit bids from service providers to cover a portion of the services sought by the consortia.

180. *Multi-year authorization.* We also clarify that applicants can authorize a consortium lead to act on their behalf for multiple years, and need not reaffirm that authorization every funding year. In order to ensure that a consortium lead is not seeking bids or applying for support on behalf of schools and libraries without their knowledge or consent, our rules have required and continue to require FCC Forms 470 and FCC Forms 471 to be signed by a person authorized to seek or order services for the applicants.[416] To show that it is authorized to seek or order eligible services for the applicants, a consortium lead may provide copies of relevant state statutes or regulations requiring members to participate in the consortium or some other proof that each consortium member is aware that it is represented in the application.

181. Another common way for a consortium lead to demonstrate its authority to seek or order eligible services on behalf of its members is to solicit letters of agency (LOAs) from consortium members.[417] Some commenters ask us to ease consortia's administrative burdens by reducing the

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[414] *See, e.g.*, ENA PN Comments at 3 (consortium purchasing tends to eliminate smaller local entities with specific fiber footprints and can therefore increase cost and reduce fiber availability); NTCA/WTA NPRM Reply Comments at 16-17 (the emphasis on consortia could disadvantage a smaller carriers that are best suited to serve a part of a consortium); Cox NPRM Comments at 5-6 (encouraging consortia purchasing could increase prices because fewer service providers will be qualified to bid on the entire consortium area due to limits on the geographic area they serve); Ednetics NPRM Reply Comments at 1; PRBT NPRM Comments at 2 (permit a group of broadband providers to bid as a unit).

[415] For example, for funding year 2014, the Maine State Library consortium utilized three service providers for its libraries to ensure it was purchasing the most cost-effective service available to its rural libraries. *See* Letter from Michael J. Jacobs, Legal Advisor to the Chief, Wireline Competition Bureau, Federal Communications Commission to Marlene H. Dortch, Federal Communications Commission, WC Docket No. 13-184, at 82 (filed May 14, 2014).

[416] *See supra* section V.B.3; *see also* 47 C.F.R. §§ 54.503(c)(2) and 54.501(a)(1) (2013).

[417] *See Kan-ed Order*, 21 FCC Rcd at 13660, para. 3 (consortium members can submit LOAs to the consortium lead to show the consortium lead's authorization to submit an application on their behalf).

frequency with which applicants provide LOAs or eliminate the practice of applicants providing LOAs to consortium leads.[418] We decline to eliminate the LOA practice altogether because, in many circumstances, an LOA could be the only means a consortium lead has to demonstrate its authority to seek or order services on behalf of a specific consortium member. We can, however, clarify that applicants may provide consortia leads with LOAs that cover multiple funding years as long as those years are specified in the LOA and as long as the authorization includes the type of services covered by the LOA.[419]

### 5. Other Rules Changes

182. We also add a definition of "consortium" in our rules that is based on the definition of "library consortium" that has long been a part of our rules.[420] In the definition, we also make it clear that consortia may include health care providers eligible under the Rural Health Care program and public sector (governmental) entities, including, but not limited to, state colleges and state universities, state educational broadcasters, counties, and municipalities.[421] This change does not alter requirements for applicants and service providers.

## C. Offering the Lowest Corresponding Price

183. In order to help ensure that E-rate applicants make cost-effective purchasing decisions, we remind service providers that they not only must charge eligible schools, libraries, and consortia the LCP when providing E-rate services, but also must offer eligible entities the LCP when submitting competitive bids to provide E-rate supported services.

184. The LCP rule prohibits an E-rate provider from "charg[ing]" E-rate applicants a price higher than the lowest price that provider charges to non-residential customers who are similarly situated to a particular school, library, rural health care provider or consortium that purchase directly from the service provider.[422] In authorizing the creation of the E-rate program, Congress imposed an obligation on telecommunications carriers to provide services to schools and libraries at rates less than the amounts charged for similar services to other parties.[423] To ensure that schools, libraries and consortia participating in the E-rate program receive all services at the lowest rates available, the Commission extended this requirement to apply to all providers of E-rate supported services.[424] The LCP rule benefits E-rate applicants and the Fund by ensuring that the price for E-rate supported services is no more than the market price for those services, absent a showing by a provider that it faces demonstrably higher costs to serve a particular school or library.[425]

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[418] *See, e.g.*, PAIU NPRM Comments at 2 (LOAs should be collected on a multi-year basis); ENA NPRM Comments at 49 (remove the LOA requirement for consortia).

[419] An LOA must contain the following five elements: the name of the person filing the application; the name of the person authorizing the filing of the application; the specific time frame the LOA covers; the signature, date, and title of an official who is an employee of the entity authorizing the filing of the application; and the type of services covered by the LOA. *See Kan-ed Order*, 21 FCC Rcd at 13659, n.10.

[420] *See* 47 C.F.R. § 54.500(g), as amended herein.

[421] This incorporates the requirements that were previously codified in 47 C.F.R. § 54.501(c)(1).

[422] *See* 47 C.F.R. §§ 54.500(f) and 54.511(b) (2014); *see also Universal Service First Report and Order*, 12 FCC Rcd at 9031, 9033, paras. 484, 488.

[423] 47 U.S.C. § 254(h)(1)(B).

[424] *See Universal Service First Report and Order*, 12 FCC Rcd at 9033, paras. 487-88 (stating that the LCP obligation extends to competitive LECs, wireless carriers or cable companies and describing LCP requirements as pertaining to providers of telecommunications services, Internet access and internal connections).

[425] *See* 47 C.F.R. § 54.511(b); *see also Universal Service First Report and Order*, 12 FCC Rcd at 9033, para. 488 (allowing service providers to offer prices above the LCP when they can show that they face demonstrably and

(continued…)

185. While the LCP rule does not expressly mention an obligation to "offer" eligible entities the LCP, this obligation was articulated in the *Universal Service First Report and Order* where the Commission described the LCP provision as requiring service providers to "offer" services that comply with the LCP.[426] To ensure that applicants receive the best possible bids from service providers in response to their FCC Forms 470, consistent with the Commission's intent, we take this opportunity to reemphasize that our LCP rule, as it is now codified in our rules, means that providers must both (i) submit bids to applicants at prices no higher than the lowest price they charge to similarly-situated non-residential customers for similar services; and (ii) charge applicants a price no higher than the LCP. In abundance of caution, we also modify our LCP rule to better reflect the dual nature of this obligation.

186. Because the LCP rule makes prices more affordable for schools and libraries, as contemplated by the statute, we also take this opportunity to agree with those commenters who support stepped-up enforcement of our LCP rule.[427] We therefore direct the Enforcement Bureau to devote additional resources to investigating, and where appropriate, bringing enforcement actions against service providers who violate the LCP rule.

## VI. MAKING THE E-RATE APPLICATION PROCESS AND OTHER E-RATE PROCESSES FAST, SIMPLE AND EFFICIENT

187. In this section, we focus on making the E-rate application process and other E-rate processes fast, simple and efficient.[428] There is broad agreement on the need to simplify the administration of the E-rate program in order to reduce the burden on applicants, make the most efficient use of E-rate funding, and foster greater participation in the E-rate program.[429] We therefore adopt a host of programmatic changes in this section, including simplifying the application process by, among other things, providing a process for expediting the filing and review of applications involving multi-year

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significantly higher costs to serve the school or library seeking service). Contrary to some suggestions, the LCP rule reasonably implements the language of section 254. In particular, section 254(h)(1)(B) requires all carriers to provide certain services to schools or libraries "at rates less than the amounts charged for similar services to other parties." 47 U.S.C. § 254(h)(1)(B). The phrase "the amounts charged for similar services to other parties" is ambiguous, and the Commission reasonably interprets that phrase as meaning "the lowest price that a service provider charges to non-residential customers who are similarly situated to a particular school, library, or library consortium for similar services." 47 C.F.R. § 54.500(f) (defining "lowest corresponding price"). Through this interpretation, the Commission seeks to enable schools and libraries to "take advantage of any cost-based rates that other customers may have negotiated with carriers during a period when the market was subject to actual, or even potential, competition." *Federal-State Joint Board on Universal Service,* 12 FCC Rcd at 9031-32, paras. 484-85. This goal is consistent not only with section 254(h)(1)(B) in particular, but also with section 254 as a whole. Likewise, as to services covered by section 254(h)(2)(A), our LCP requirement helps ensure that our E-rate rules enhance access to advanced telecommunications and information services for schools and libraries in an "economically reasonable" manner. 47 U.S.C. § 254(h)(2)(A).

[426] *See, e.g., id*. at 9031-32, para. 484.

[427] *See, e.g.*, METLA Comments at 9 (rigidly enforce the LCP rule); AdTec Comments at 4 (take aggressive action to enforce the LCP rule); Illinois Library Comments at 2 (enforce the LCP rule).

[428] In the *E-rate Modernization NPRM*, we sought comment on measures and other options for streamlining the administration of the E-rate program. *See E-rate Modernization NPRM*, 28 FCC Rcd at 11362-77, paras. 224-69.

[429] *See, e.g.*, Arkansas NPRM Comments at 10; Butte County NPRM Comments at 5; Capistrano USD NPRM Comments at 4; CenturyLink NPRM Comments at 4-5; Comcast NPRM Comments at 34; California SBA NPRM Comments at 4; Eastex/Riviera NPRM Comments at 2; Hawaii NPRM Comments at 11-12; HP NPRM Comments at 17; Intrafinity NPRM Comments at 6; Imperial County NPRM Comments19; MDTC NPRM Comments at 5; MMTC NPRM Comments at 19; Missouri DOE NPRM Reply Comments at 1; NASBE NPRM Comments at 2; NEA NPRM Comments at 3; Pacifica NPRM Comments at 1; Pioneer NPRM Reply Comments at 5; San Mateo NPRM Comments at 2; ; Verizon NPRM Comments at 19; Vermont DOL NPRM Comments at 1; Visions NPRM Comments at 2; Digital Promise NPRM Reply Comments at 5; Gates Foundation NPRM Reply Comments at 5; Windstream NPRM Reply Comments at 3-4.

contracts; eliminating technology plans for internal connections; simplifying and clarifying applicants' discount rate calculations; simplifying the invoicing and disbursement process; and requiring all USF requests for review to be filed initially with USAC. As we streamline the program, we remain mindful of our need to gather relevant data from applicants and to protect against waste, fraud, and abuse. Accordingly, in this section, we also adopt measures to protect against waste, fraud, and abuse.

188. We also direct USAC to take steps to reduce the administrative burden on applicants by processing and managing applications more efficiently, modernizing its E-rate information technology (IT) systems, timely publishing all non-confidential E-rate data in an open and standardized format, and communicating more clearly with E-rate applicants and service providers. We recognize that, as part of this modernization effort, USAC, working with OMD and the Bureau, already has made great strides, and we expect that they will continue to work together closely to push these reforms forward.

189. USAC, working with the Bureau and OMD, will implement the administrative changes we adopt today in funding year 2015, unless otherwise noted. In the *Universal Service Third Report and Order*, the Commission delegated authority to the Bureau to issue orders interpreting our E-rate rules as necessary to ensure that support for services provided to schools and libraries operate to further our universal service goals.[430] We re-affirm that delegation. We also direct the Bureau, working with OMD and other Commission staff, to make changes to the E-rate forms, as needed, and to provide direction to USAC to implement the changes, including providing clarification and guidance in the case of any ambiguity that may arise. These changes, taken together, will result in a program that is easier to navigate for applicants and vendors, will improve program efficiency by eliminating unnecessary complexities, and will constrain USAC's administrative expenses, ultimately resulting in a cost savings to the E-rate program that can be used for the benefit of schools and libraries.[431]

### A. Simplifying the Application Process

190. We agree with those commenters who support simplifying the E-rate application process as an important part of streamlining the administration of the E-rate program.[432] We therefore adopt a simplified application process for multi-year contracts; eliminate the requirement for technology plans; ease the signed contract requirement to allow applicants to seek E-rate support once they have entered into a legally binding agreement with a service provider; exempt from our competitive bidding requirements purchases of commercially available high-speed broadband services that cost less than $3,600 per year; require the use of electronic filings; and enable direct connections between schools and libraries.

#### 1. Simplifying the Application Process for Multi-Year Contracts

191. As an initial matter, we simplify the application process for funding requests that involve multi-year contracts for eligible services. This simplified application process will be available to any applicant, beginning in funding year 2015, when: (1) the applicant has a multi-year contract for E-rate

[430] *Universal Service Third Report and Order*, 12 FCC Rcd at 22488-89, para. 6.

[431] Notwithstanding arguments that the aggregate rule changes adopted here introduce unwarranted complexity, in this section we reduce complexity in the program where the record provided a basis for doing so, and otherwise have reformed our rules to focus E-rate support on high-speed broadband while balancing the obligation to maintain protections against waste, fraud, and abuse, and otherwise be a prudent guardian of the public's resources. *See generally supra* sections IV, V. We remain open to identifying additional ways to make the E-rate program faster, simpler, and more efficient, *see supra* para. 9 (discussing how the *E-rate Modernization NPRM* remains pending); *infra* section VIII (FNPRM), informed by the steps we take in this Order to measure and evaluate the E-rate program in this regard. *See supra* section III.C.

[432] *See, e.g.*, Capistrano SD NPRM Comments at 4; Fairfax PS NPRM Comments at 2; Imperial County NPRM Comments at 19-20; LEAD NPRM Comments at 7; Merit NPRM Comments at 6; MMTC NPRM Comments at 19; San Mateo NPRM Comments at 2; Ednetics NPRM Reply Comments at 2; Missouri DOE NPRM Reply Comments at 1; Vigo County NPRM Reply Comments at 2.

supported services that is no longer than five years, and (2) any changes in the requested services or to the terms and conditions under which those services are provided are within the scope of the establishing FCC Form 470 and the applicable contract. As the Commission proposed in the *E-rate Modernization NPRM*, applicants that elect to use the multi-year contract funding review process will only be required to submit a complete FCC Form 471 for the first funding year in which they are seeking E-rate support under the multi-year contract.[433] All applicants, even those currently in the middle of a multi-year contract, will be required to file a complete FCC Form 471 once. In subsequent funding years covered by a multi-year contract, applicants will be permitted to use a streamlined application process that will be shorter, require less information from the applicants, and be approved through an expedited review process, absent evidence of waste, fraud, or abuse.

192. By minimizing pre-commitment application review by USAC in subsequent years of a multi-year contract, we anticipate USAC will be able to review applications more quickly while lowering the administrative burdens on applicants and without increasing the likelihood of waste, fraud and abuse.[434] While applicants taking advantage of this new process will benefit greatly from expedited review and the reduced administrative burden, this process does not guarantee funding in subsequent years, even for the same services. E-rate funding will continue to be committed and disbursed on an annual basis. Applicants must be eligible for E-rate support in each of the years funding is sought, and the services must be eligible for support in each such year.

193. We agree with those commenters who suggest that five years is an appropriate maximum length of time for contracts seeking to use a multi-year contract application process.[435] Commenters note that a five-year contract length is consistent with other procurement models in the education industry.[436] We therefore find that the three-year limit the Commission proposed in the *E-rate Modernization NPRM* is too restrictive.[437] Although we do not adopt a maximum contract length in this Report and Order, in the FNPRM we do seek further comment on setting a maximum contract length for E-rate supported services.[438]

194. To facilitate these changes to our application process, we direct the Bureau and OMD to work with USAC to revise the application process for multi-year contracts so that an applicant is not required to complete the full FCC Form 471 after the first year the applicant seeks funding for services provided pursuant to a multi-year contract that has a maximum term of five years. Under this revised application process, applicants must file a complete FCC Form 471 in the first year of a multi-year contract that is eligible for this streamlined review process, but in subsequent contract years applicants will only need to provide basic information identifying the applicant, confirm that the funding request is a continuation of a FRN from a previous year based on a multi-year contract, and identify and explain any

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[433] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11367-68, paras. 239-241. As discussed below, in the *E-rate Modernization NPRM*, the Commission proposed allowing applicants with contracts that are no more than three years in length to file an initial FCC Form 471. *Id.* The rules we adopt expand that to contracts that are no more than five years in length.

[434] *See, e.g.*, NEA NPRM Comments at 10; SCG NPRM Reply Comments at 12; MMTC NPRM Comments at 27 (noting that bureaucratic inconsistencies in review of multi-year application deter small and rural schools from applying for funding); Schoolwires NPRM Comments at 8; Arkansas NPRM Comments at 25-26.

[435] *See, e.g.*, ALA NPRM Comments at 29 (proposing a limit of five years before an applicant has to file a new FCC Form 470); eDimension NPRM Comments at 1-2; Lancaster Lebanon NPRM Comments at 3; Comcast NPRM Comments at 40; Comcast PN Comments at 18.

[436] *See, e.g.*, EdCo NPRM Reply Comments at 11; Lancaster Lebanon NPRM Comments at 5; MOREnet NPRM Comments at 10; *see also* Adams County NPRM Reply Comments at 2 (noting that many service providers offer significant discounts for contracts longer than 3 years).

[437] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11367-68, para. 241.

[438] *See supra* section VIII.B.

changes to their application, such as changes in the discount rate, the membership of a consortium, or the services ordered. All such changes must be within the scope of the establishing FCC Form 470 and the underlying agreement. While USAC and the Commission staff, of course, remain able to request other information necessary to reach a commitment decision, we direct USAC to aim to minimize such requests.

195. Although some commenters would prefer to file a single FCC Form 471 to cover multiple years of a multi-year contract,[439] we find that a streamlined filing and review process for subsequent contract years of a multi-year contract balances the applicant's desire for expedited review and administrative convenience with USAC's need to confirm basic information about the request in subsequent years, and to verify an applicant's interest in applying for funds for that funding year. USAC will review the initial FCC Form 471 applications associated with multi-year contracts as thoroughly as it reviews applications covered by one-year contracts.[440] In subsequent years of a multi-year contract, however, where USAC has already reviewed a funding application for the first year of a multi-year contract, USAC will be able to streamline its pre-commitment review.[441] If there are no changes to the services purchased, conducting the same review for each subsequent year of the contract is not likely to identify errors in the application.

196. While we amend our rules to simplify applicants' use of multi-year contracts, we decline to allow applicants to receive multi-year funding commitments. In the *E-rate Modernization NPRM*, the Commission sought comment on allowing multi-year funding commitments.[442] The Commission cited to its recent decision to allow multi-year funding commitments in the *Healthcare Connect Fund Order*, in which the Commission noted that, by eliminating the need for applicants to file every year, multi-year funding commitments would reduce uncertainty and minimize the administrative burden for applicants and for USAC.[443] Despite support from commenters for similar multi-year funding commitments in the E-rate context,[444] important differences between the Healthcare Connect Fund and the E-rate program prevent us from adopting multi-year funding commitments in the E-rate program. Unlike the Healthcare Connect Fund, demand for E-rate funds significantly outstrips supply.[445] Further, there is no record yet on the effect of the *Healthcare Connect Fund Order* on the Healthcare Connect Fund or as a constraint on funding available for other applicants in the fund.[446] Although multi-year commitments may slightly increase administrative efficiency for applicants and USAC, obligating funds years in advance of their use would be detrimental to the management of the program. Moreover, the multi-year contract application process we adopt today should allow the E-rate program and applicants to achieve many of the efficiencies of a multi-year funding commitment process.

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[439] *See, e.g.*, Verizon NPRM Comments at 21; ALA NPRM Comments at 29; Arkansas NPRM Comments at 25-26; CenturyLink NPRM Comments at 24; Comcast NPRM Comments at 35; Cox NPRM Comments at 12; MOREnet NPRM Comments at 10; MMTC NPRM Comments at 27; NTCA/WTA NPRM Reply Comments at 20; SECA NPRM Comments at 45; Sprint NPRM Comments at 18; Comcast PN Comments at 19.

[440] *See* USAC, Schools and Libraries Program, Application Review, http://www.usac.org/sl/applicants/step05/default.aspx (last visited June 18, 2014).

[441] If USAC or the Commission receives allegations of fraud or a violation of program rules, additional review may be warranted.

[442] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11368, para. 242.

[443] *See Healthcare Connect Fund Order*, 27 FCC Rcd at 16801, para. 296; *E-rate Modernization NPRM*, 28 FCC Rcd at 11368, paras. 239, 242.

[444] *See, e.g.*, Verizon NPRM Comments at 20; The Quilt NPRM Comments at 10-11; ALA NPRM Comments at 29; EdCo NPRM Reply Comments at 10-11.

[445] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11309, para. 9.

[446] *See, e.g.*, CenturyLink NPRM Reply Comments at 21.

### 2. Eliminating the Technology Plan Requirements

197. In the interest of reducing the administrative burden on E-rate applicants, beginning with funding year 2015, we eliminate from our rules the technology plan requirements for applicants seeking E-rate support for category two services.[447] The Commission previously eliminated the technology plan requirements for priority one services, and having considered the record, we now agree with commenters that the burden of our requirement that applicants for internal connections and basic maintenance of internal connections have certified technology plans outweighs the benefits, particularly for small applicants with limited resources.[448]

198. We agree with those commenters who argue that technology planning is an important step in the process of long-term planning on how best to procure and utilize internal connections.[449] We are certain though that, even absent this rule, technology planning will continue to occur because technology has become a central part of school and library infrastructure, and technology planning has become integrated into applicants' core strategic planning.[450] We also expect that the structural changes we make to the E-rate program's approach to providing support for internal connections and basic maintenance of internal connections will encourage good planning. We strongly encourage all applicants, both large and small, to carefully review existing plans given the many changes to the E-rate program that we adopt in this Report and Order. However, we find that the burden of getting formal approval and certification of these technology plans outweighs the benefits to the program.

### 3. Exempting Low-Dollar Purchases of Commercially Available Business-Class Internet Access from Competitive Bidding Rules

199. We create an exemption in our competitive bidding rules for applicants seeking E-rate support to purchase commercially available, business-class Internet access services that cost $3,600 or less for a single year. An Internet access service will be eligible for this exemption only if it offers bandwidth speeds of at least 100 Mbps downstream and 10 Mbps upstream for a pre-discount price of $3,600 or less annually, including any one-time installation and equipment charges, and the service and price are commercially available.[451] Based on our review of commercial offerings online,[452] this $3,600

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[447] *See* 47 C.F.R. § 54.508 as amended herein.

[448] *See, e.g.*, Letter from Gary Rawson, Chair, SECA, to Chairman Wheeler et al., Federal Communications Commission, WC Docket No. 13-184, at 1-2 (filed July 7, 2014) (Gary Rawson Ex Parte) (detailing the burdens of the technology plan requirement); SECA PN Comments at 8 (outlining the challenges of technology plans); ATALM NPRM Reply Comments at 6 (stating a requirement for Tribal libraries to seek approval from a state library agency places a burden on funding for Tribal libraries).

[449] *See, e.g.*, Letter from Douglas A. Levin, Executive Director, SEDTA, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed July 7, 2014) (SETDA July 7 Letter to Chairman Wheeler et al) ("the process of long-term planning is important to ensure that decisions about the purchase and deployment of technology are efficient, effective, and tightly aligned to student learning needs and school reform and improvement goals").

[450] *See, e.g.*, ENA NPRM Comments at 18-20 (stating that planning already occurs and a specific technology pan for E-rate is duplicative); Iowa DOE NPRM Reply Comments at 16 (technology planning should be a state responsibility, rather than part of the E-rate program).

[451] Here, commercially available means publicly available to enterprise, small business, or other government entity customers in the same form and rates that it is offered to schools or libraries.

[452] *See, e.g.*, Comcast Business, Business Internet, http://business.comcast.com/internet/business-internet/plans-pricing (last visited June 18, 2014) (offering 100 Mbps/20 Mbps for $199.95/month); Armstrong Cable, Internet, http://armstrongonewire.com/business/zoom.aspx (last visited June 18, 2014) (offering 100 Mbps/10Mbps for $149.95/month); Cox, Business Internet Packages, http://ww2.cox.com/business/cleveland/data/pricing.cox (last visited June 18, 2014) (offering a two-year term agreement option of 100 Mbps/20 Mbps for $226.99/month); MediaCom, Business Internet, http://business.mediacomcable.com/small-business/business-internet/ (last visited

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annual limit is a reasonable maximum that will allow some applicants to purchase commercially available business-class Internet access. We clarify that the $3,600 annual limit is the pre-discount amount for the service per school or library.[453] So, for example, a library system with three library branches could qualify for this exemption if it purchased 100 Mbps downstream and 20 Mbps upstream Internet access service for each of its three branches at a cost of $250 per month for each branch. Each school or library must receive the eligible service at a cost of less than $3,600 annually and applicants may not average the cost of services across a number of schools or libraries. This exemption will become effective in funding year 2015. As explained above, applicants may purchase services with a multi-year contract, such as a two-year term, but we will not make multi-year commitments.[454] Applicants will therefore still be required to file an FCC Form 471 in the second year of the service.

200. We recognize that competitive bidding is an essential component of the E-rate program.[455] At the same time, the record supports a finding that administrative costs associated with the Commission's competitive bidding rules and requirements may deter program participation by entities requesting low-dollar Internet access services.[456] We are particularly concerned that smaller schools and libraries may not be purchasing high-speed Internet connectivity through the E-rate program due to these administrative costs. Consistent with the goals we adopt today to increase broadband and streamline the administrative process, we expect this limited exemption to competitive bidding will encourage additional bandwidth purchases and increased program participation. This exemption is likely to be particularly attractive to small applicants that face a disproportionate administrative burden from the competitive bidding process and encourage these entities to increase bandwidth speeds in the short term. Moreover, the bandwidth speeds required to qualify for this program are consistent with the goals we have outlined in this Report and Order, albeit typically for "best efforts" class services rather than dedicated connections. We believe that such "best efforts" service will frequently be sufficient for smaller entities with fewer students or patrons or in rural areas where fiber has not been deployed.[457] For example, ALA notes that "[o]ver half of all rural libraries have internet speeds of 4 Mbps or less … and only 17 percent of rural libraries have speeds greater than 10 Mbps."[458] As of 2012, only nine percent of all libraries have speeds greater than 100 Mbps.[459] For these entities and others, this exemption will provide a simple and efficient method to purchase business-class Internet access and quickly increase connectivity speeds.

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June 18, 2014) (offering speeds of 105 Mbps/10 Mbps for $299.95/month with a term agreement); Verizon, FiOS Internet, http://www.verizon.com/smallbusiness/fiosInternetOverview.jsp?smbReferenceValue=SMBFIOSInternetPackageRef (last visited June 18, 2014) (offering speeds up to 150 Mbps/65 Mbps for $189.99/month with a term agreement).

[453] For example, a library at the 50 percent discount rate could receive up to $1,750 in E-rate support.

[454] *See supra* para. 196.

[455] *See, e.g., Schools and Libraries Sixth Report and Order,* 25 FCC Rcd at 18772, para. 18.

[456] *See, e.g.*, ALA NPRM Reply Comments at 11 (suggesting state and local procurement rules sufficient when the request is less than a *de minimis* amount, like $5,000); Iowa DOE NPRM Comments at 10 (noting that the competitive bidding process has been a source of frustration for its smallest districts and schools, which frequently get no bids after posting a Form 470); NASCIO NPRM Comments at 3 (supporting a *de minimis* exemption from E-rate competitive bidding rules).

[457] *See* Letter from Thomas Cohen, Counsel, American Cable Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed Apr. 7, 2014) (stating ACA's members have used DOCSIS 3.0 technology to provide connections at speeds over 100 Mbps in rural areas where fiber has yet to be deployed).

[458] ALA PN Comments at 10.

[459] *See* American Libraries Association, Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012, *American Libraries Magazine*, at 41 (rel. summer 2012),

(continued…)

201. With respect to their purchase of such services, applicants will be exempt from the competitive bidding rules under section 54.503(a)-(c), the certification requirement under section 54.504(a)(1)(vi), and the corresponding rule on the selection of a provider of eligible services under section 54.511(a) of our rules.[460] Such applicants will use the FCC Form 471 to certify to their purchase of an eligible commercially available business-class Internet access service. We remind applicants of their obligation to comply with record retention rules when purchasing eligible Internet access.[461] We also caution applicants and vendors that our gift rules will continue to apply even where a purchase arrangement is exempt from the competitive bidding process.[462]

202. We find that purchasing high-speed Internet access with at least 100 Mbps/10 Mbps for no more than a pre-discount price of $3,600 is a cost-effective service offering, particularly in light of the benefits for smaller schools and libraries.[463] In order to ensure that the benefits of removing the administrative burden continue to outweigh the costs of exempting competitive bidding,[464] we also delegate authority to the Bureau to lower the annual cost of broadband services or raise the speed threshold of broadband services eligible for this competitive bidding exemption, based on a determination of what rates and speeds are commercially available and will meet the needs of at least some subset of schools and libraries. We decline to adopt a *de minimis* exemption for other eligible services at this time,[465] but we keep the record open on this issue and look forward to learning from the experience of applicants who take advantage of the exemption from competitive bidding that we adopt today.[466]

### 4. Easing the Signed Contract Requirement

203. In order to further increase the efficiency of the administrative process and simplify the application process for applicants, we revise section 54.504(a) of our rules to require that applicants have a signed contract or other legally binding agreement in place prior to submitting their FCC Forms 471 to USAC.[467] The rule had required applicants to submit their FCC Forms 471 requesting support for services "upon signing a contract for eligible services."[468] While this rule ensures that applicants have negotiated and agreed to contractual terms prior to the filing of an FCC Form 471 requesting support for E-rate services, there are many instances where applicants have an agreement in place with their service provider or are already receiving services, but have difficulty obtaining signatures prior to the submission of their FCC Forms 471.[469] Although we received no comments on this issue, in many instances,

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http://viewer.zmags.com/publication/4673a369#/4673a369/1 (last visited June 18, 2014) (ALA Summer 2012 Report).

[460] *See* 47 C.F.R §§ 54.503 (a)-(c); 54.504(a)(1)(vi); 54.511(a) as amended herein.

[461] *See infra* section VI.G.1.

[462] *See* 47 C.F.R. § 54.503(d).

[463] 47 C.F.R. § 54.511(a).

[464] *See* Letter from Angie Kronenberg, Chief Advocate and General Counsel, COMPTEL, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed July 7, 2014) (noting that benefits of removing administrative burdens must outweigh the costs).

[465] *See id.* (stating that exemptions should be limited).

[466] *See, e.g.*, NASCIO NPRM Comments at 3 (supporting a *de minimis* exemption or streamlining of competitive bidding rules if state rules are followed).

[467] *See* 47 C.F.R. § 54.504(a) as amended herein.

[468] *See* 47 C.F.R. § 54.504(a); Instructions for Completing the Schools and Libraries Universal Service, Services Ordered and Certification Form, OMB 3060-0806 at 18 (December 2013). We sought comment in the *E-rate Modernization NPRM* on whether to revise the deadline for applicants to sign a contract with their service provider. *See E-rate Modernization NPRM*, 28 FCC Rcd at 11359, para. 208.

[469] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11359, para. 208.

applicants have sought a waiver of this rule after having failed to obtain signatures prior to the submission of their FCC Forms 471. The Commission has consistently waived the requirement of a signed contract for petitioners who have demonstrated that they had a legally binding agreement in place for the relevant funding year.[470] Rather than requiring applicants to seek such waivers, we now revise our rules to require applicants to have a signed contract or other legally binding agreement in place prior to filing their FCC Forms 471.[471] This revision to our rules will be effective beginning in funding year 2015.

204. Applicants and service providers should understand that, although no longer required, a signed contract will constitute the best evidence that a legally binding agreement exists. Absent the existence of a signed contract, in determining whether a legally binding agreement is in place, we direct USAC to consider the existence of a written offer from the service provider containing all the material terms and conditions and a written acceptance of that offer as evidence of the existence of a legally binding agreement. For example, a bid for the services that includes all material terms and conditions provided in response to an FCC Form 470 would be sufficient evidence of an offer and an email from the applicant telling the service provider the bid was selected would suffice as evidence of acceptance. In addition, after a commitment of funding, an applicant's receipt of services consistent with the offer and with the applicant's request for E-rate support will also constitute evidence of the existence of a sufficient offer and acceptance. A verbal offer and/or acceptance will not be considered evidence of the existence of a legally binding agreement. Revising the rule in this manner will provide applicants with sufficient flexibility to finalize their service agreements after filing their FCC Forms 471 while protecting the Fund against waste, fraud, and abuse. We also remind parties that they must retain all relevant documents for 10 years, consistent with our revised document retention rules.[472]

### 5. Requiring Electronic Filing of Documents

205. We also agree with commenters who suggest that, in order to streamline the administration of the program, we should require E-rate applicants and service providers to file all documents with USAC electronically and USAC to make all notifications electronically, and therefore direct USAC, in consultation with the Bureau and OMD, to phase in such a requirement over the next three funding years.[473] As the Commission noted in the *E-rate Modernization NPRM*, the electronic submission of FCC forms will improve the efficiency of submitting and processing applications, resulting in faster commitments and disbursements of E-rate funding.[474] Furthermore, electronic filing will reduce the program's administrative costs because USAC will not have manually entered data into its electronic system from paper submissions. Electronic filing will result in fewer errors on forms and other

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[470] *See Requests for Waiver of the Decision of the Universal Service Administrator by Barberton City School District, et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 23 FCC Rcd 15526 (Wireline Comp. Bur. 2008); *Requests for Review and/or Requests for Waiver of the Decisions of the Universal Service Administrator by Animas School District 6 et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 26 FCC Rcd 16903 (Wireline Comp. Bur. 2011); *Requests for Review and/or Requests for Waiver of the Decisions of the Universal Service Administrator by Administrative Headquarters et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 27 FCC Rcd 13509 (Wireline Comp. Bur. 2012) *Requests for Review and/or Requests for Waiver of the Decisions of the Universal Service Administrator by Bayfield School District, et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 27 FCC Rcd 15890 (Wireline Comp. Bur. 2012) (all granting appeals on the basis that petitioners had agreements in place with their service providers before filing their FCC Forms 471, even though the contracts in question were not signed and dated by both parties before the petitioners filed their FCC Forms 471).

[471] *See* 47 C.F.R. § 54.504(a) as amended herein.

[472] *See infra* section VI.G.1.

[473] *See, e.g.*, San Jacinto NPRM Comments at 2; CRW NPRM Comments at 5; EEI NPRM Reply Comments at 2; Merit NPRM Comments at 9.

[474] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11363, para. 28.

communications between USAC and applicants and service providers.[475] Therefore, beginning in funding year 2017, we will require the submission of all filings and notifications electronically.

206. Some commenters argue that E-rate applicants and service providers should have the option of filing paper copies.[476] We recognize that applicants vary widely in connectivity, technical resources and administrative resources,[477] and a limited exemption to our mandatory electronic filing requirement would allow applicants and USAC to reap many of the benefits of electronic filing while allowing the program to respond to the needs of all applicants and service providers. We will therefore allow applicants who can demonstrate that they have insufficient resources to make electronic filings to file paper copies of applications and other documents. We direct the Bureau and OMD, working with USAC, to determine the circumstances under which applicants may be exempt from this mandatory electronic filing requirement and the process for applicants to seek permission to file paper copies of documents.

### 6. Enabling Direct Connections Between Schools and Libraries

207. In the interest of promoting access to high-speed broadband connections in the simplest and most efficient manner possible, we take action consistent with a suggestion made by the ALA, and supported by other commenters, that we allow rural schools and libraries eligible for E-rate support to establish direct connections for the purpose of accessing high-speed broadband services.[478] As ALA explains, in many rural communities, a library with low bandwidth may be in close proximity (e.g., across the street) to a school with significantly higher bandwidth and could be easily added to the school WAN.[479] We find that allowing these connections will afford some schools and libraries that presently lack access to high-speed broadband the opportunity to quickly and efficiently benefit from such connections.

208. We recognize that it will likely be necessary to waive some of our rules to allow E-rate support for such connections.[480] However, the record is not fulsome enough for us to determine with certainty what rules will need to be waived for each particular direct connection project. We therefore encourage applicants to file waiver requests for the purpose of seeking E-rate support for such direct connections. We also direct the Bureau to expeditiously consider such waiver requests and, as appropriate, to waive our rules, as is necessary, to grant such requests, including the rule that would

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[475] *Id.* at 11363-64, para. 28.

[476] *See, e.g.*, Boston NPRM Comments at 7; EdLiNC NPRM Comments at 26; E-Rate Central NPRM Comments at 7-8.

[477] *See, e.g.*, NCEA NRPM Comments at 2.

[478] *See* Letter from Marijke Visser, Assistant Director, Office of Information Technology Policy, American Library Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2 (filed June 4, 2014) (ALA Direct Connections Ex Parte) ("For example, in many rural communities a library with low bandwidth may be across the street from the school that has significantly higher bandwidth and could effectively be added to the school WAN absent program barriers that currently discourage such partnerships."); *see also* Nebraska OCIO PN Comments at 12 ("In many states across the U.S., rural public libraries lack the necessary financial resources to establish and maintain their own high bandwidth broadband services and are confined to T-1, DSL or cable model Internet service inadequate for the number of computers and wireless devices being supported. Coincidentally, in these same rural communities, a nearby public school district may be fiber-connected or have scalable broadband service at their disposal."); SECA PN Comments at 24 (same); KDLA PN Reply Comments at 2 ("The school-library wide area network proposal generated a great deal of interest in an informal survey of library IT staff. KDLA support this proposal, noting the incredible benefits to small, rural libraries.").

[479] *See* ALA Direct Connections Ex Parte at 2.

[480] *See, e.g.*, ALA PN Comments at 13 ("ALA recommends the Commission review its current rules related to special construction and adapt them to allow for the necessary build-out between the library and nearby school for the purposes of this program.").

otherwise require both the school and the library to apply for E-rate support.[481] We further direct the Bureau to report back to us on any such projects so that we may consider whether to amend our rules in the future to allow for such projects.[482]

### B. Simplifying Discount Rate Calculations

209. In the interest of making the E-rate application process and other E-rate processes fast, simple and efficient, we adopt four changes to the procedures for applicants to use in calculating their E-rate discounts. First, we require school districts to calculate and use district-wide discount rates for each application, thus eliminating the need to calculate different discount rates depending on which schools in a district are receiving services. Second, we modernize our definitions of "rural" and "urban" for purposes of determining applicants' discount rates. Third, we provide direction on how schools and school districts that receive funding under the new community eligibility provision (CEP) of the United States Department of Agriculture's (USDA) National School Lunch Program (NSLP) should calculate their E-rate discount rates. Finally, in order to protect the program against waste, fraud and abuse, we also direct USAC to require schools that calculate discount eligibility based on projections from school-wide surveys to base their E-rate discount rate only on the surveys they actually collect.

#### 1. Adopting District-Wide Discount Rates

210. Consistent with our goal of making the E-rate application process and other E-rate processes fast, simple and efficient, we adopt the proposal in the *E-rate Modernization NPRM* to amend our rules to require each school district to calculate and use a single district-wide discount rate, rather than calculating and using building-by-building discount rates.[483] This requirement will be effective beginning with funding year 2015. The record demonstrates that E-rate applicants find the current building-by-building discount calculation approach to be confusing, time-consuming, and fraught with the potential for errors.[484] IT is also a significant source of delay in USAC's application review process. We agree with commenters that adopting a district-wide discount rate will simplify and streamline the E-rate application process for applicants as well as USAC, while creating a more equitable system of determining the discount schools and libraries should receive for eligible services.[485]

211. Requiring the use of a district-wide discount ensures the E-rate program provides higher discount rates for higher poverty school districts, while more closely matching the E-rate funding mechanism to the actual accounting practices and organizational structure of school districts.[486] Individual schools within a district do not have their own local taxing authority nor do they generally

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[481] 47 C.F.R. §§ 54.503, 54.504.

[482] Generally, the Commission's rules may be waived if good cause is shown. 47 C.F.R. § 1.3. The Commission may exercise its discretion to waive a rule where the particular facts make strict compliance inconsistent with the public interest. *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*). In addition, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis. *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166. Waiver of the Commission's rules is appropriate only if both (i) special circumstances warrant a deviation from the general rule, and (ii) such deviation will serve the public interest. *Northeast Cellular*, 897 F.2d at 1166.

[483] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11339-41, paras. 126-29.

[484] *See, e.g.*, Alaska EED NPRM Comments at 13; SECA NPRM Comments at 27-30.

[485] *See, e.g.*, Alaska EED NPRM Comments at 13; Alabama DOE NPRM Comments at 17; Big Spring NPRM Comments at 1; CSM NPRM Comments at 12; Humboldt County NPRM Comments at 1; Iowa DOE NPRM Comments at 8; Nebraska OCIO NPRM Comments at 8-9; Richmond County NPRM Comments at 4; SECA NPRM Comments at 27-30; San Jacinto NPRM Comments at 2; UEN NPRM Comments at 2.

[486] *See, e.g.*, Alaska EED NPRM Comments at 13; Richmond County NPRM Comments at 4; SDDOE NPRM Comments at 14-15; SECA NPRM Comments at 27.

have a budget that is legally separate from the district's budget.[487] Moreover, the tax base of a district is the entire district population, not just the population associated with a subset of schools.[488] While individual schools within a district may have more or fewer student eligible for the NSLP, school districts develop consolidated budgets and allocate resources to support comprehensively all of the district's students.[489] As such, we find that it is more appropriate to gauge a district's relative need for funding based on its entire student population.

212. The record demonstrates the many benefits of adopting a district-wide discount. For example, districts will no longer need to complete multiple steps to calculate the appropriate discounts for each building.[490] Districts will also no longer need to file separate FCC Forms 471 for different combinations of schools that produce different discount level requests.[491] Also, by using a district-wide discount, districts will no longer have to make difficult determinations regarding non-instructional facilities (NIFs). For example, adopting a district-wide discount approach will eliminate the confusing and possibly misleading calculation for a NIF with a classroom that requires the applicant to rely on a snapshot of students on a single day for the specific discount.[492] Consortia applications will also be simpler and more equitable since each member of the consortium, whether an individual school or an entire district, will use the discount level for the district in which it is located, calculated on a district-level basis.[493]

213. The record also demonstrates that a district-wide approach will reduce the administrative burden on USAC by removing the need to identify and verify each school's discount rate.[494] Commenters note that associated USAC efforts to validate the calculation are time-consuming.[495] Reducing the burden of verifying each school's discount rate should speed the review process, and therefore help speed funding decisions to the benefit of all applicants.[496]

214. Modifying our rules so that schools calculate a district-wide discount rate should also benefit libraries, which already use the district-wide discount rate of the school districts in which they are located.[497] We anticipate libraries will benefit from this change because school districts will have to

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[487] *See, e.g.*, Alaska EED NPRM Reply Comments at 4; LAUSD NPRM Comments at 7; SDDOE NPRM Comments at 14-15; SECA NPRM Comments at 27.

[488] *See, e.g.*, SECA NPRM Reply Comments at 13.

[489] *See, e.g.*, Alaska EED NPRM Reply Comments at 4; SECA NPRM Reply Comments at 13.

[490] *See, e.g.*, Alaska EED NPRM Comments at 13; Alabama DOE NPRM Comments at 17; Big Spring NPRM Comments at 1; CSM NPRM Comments at 12; Humboldt County NPRM Comments at 1; Iowa DOE NPRM Comments at 8; Nebraska OCIO NPRM Comments at 8-9; Richmond County NPRM Comments at 4; SECA NPRM Comments at 28; UEN NPRM Comments at 13.

[491] *See* SECA NPRM Comments at 28.

[492] *See* USAC, School and Libraries Program, Non-instructional Facilities, http://www.usac.org/sl/applicants/beforeyoubegin/non-instructional-facilities.aspx (last visited June 18, 2014).

[493] *See* USAC, School and Libraries Program, Calculating Discounts, http://www.usac.org/sl/applicants/step04/discounts.aspx (last visited June 18, 2014) (noting that a consortium application's discount is based on a simple average of all the entities' discount levels and is not weighted by members' student counts).

[494] *See, e.g.*, SECA NPRM Comments at 30 (simplification could save days or weeks when reviewing a single district's application, especially large district).

[495] *See, e.g.*, Iowa DOE NPRM Comments at 8; SECA NPRM Comments at 30.

[496] *Id*.

[497] *See, e.g.*, EdLiNC NPRM Comments at 31.

determine their district-wide discount rates to submit their FCC Forms 471 and thus libraries should have an easier time getting that information in a timely fashion from the relevant school districts.

215. Several commenters express concern that a district-wide discount calculation could deprive schools and libraries in higher poverty neighborhoods of internal connection funding.[498] However, the revisions we make in this Report and Order to funding internal connections will provide predictable support for internal connections for all schools and libraries, and provide a greater discount for higher poverty school districts and the libraries located in those school districts.[499]

216. School districts rarely purchase broadband on a school or neighborhood basis but instead buy on a larger scale. Cost efficiencies and budgeting realities result in school districts purchasing telecommunications and Internet services on a district-wide basis or in geographic areas within that district that align with service provider availability.[500] Although commenters also express concern that school districts will be unable to target E-rate resources to schools and libraries in lower-income neighborhoods if a district-wide discount calculation is in place,[501] the Commission's decision to adopt a district-wide discount will not affect school districts' ability to apply for funding based on the connectivity needs of individual schools. We also take this opportunity to remind school districts that they are under an obligation to ensure "that the most disadvantaged schools and libraries that are treated as sharing in the service receive an appropriate share of benefits from those services."[502]

217. In light of the benefits to school districts and libraries of adopting a district-wide discount, we revise section 54.505(b)(4) of our rules to require school districts to calculate their E-rate discounts by: dividing the total number of students in the district eligible for the NSLP by the total number of students in the district and comparing that single figure against the discount matrix to determine the school district's discount rate for E-rate supported services.[503] All public schools and libraries within that public school district will receive the same discount rate. For the sake of simplicity, library systems that have branches or outlets in more than one public school district should use the address of the central outlet or main administrative office to determine which public school district the library system is in, and should use that public located in school district's discount rate when applying as a library system or on behalf of individual libraries within that system.

218. In addition, our adoption of a district-wide discount allows us to permit applicants to add schools within their districts that were inadvertently omitted from a district's E-rate funding applications even post-commitment. Our rules currently require schools and libraries to list on their FCC Forms 471 every entity that will receive E-rate supported services under that application. Even when a school district is intending to use the requested service to serve all the schools in its district, it sometimes inadvertently omits an eligible school from the application. The district has the opportunity to correct

498 *See, e.g.*, Cristo Rey NPRM Reply Comments at 2; Fox Chapel NPRM Reply Comments at 3-4; Multi-Cultural Academy NPRM Reply Comments at 2; Riverside USD NPRM Comments at 11.

499 *See supra* section I.A.1.

500 *See* Hawaii NPRM Comments at 10.

501 *See, e.g.*, Chicago NPRM Reply Comments at 8; Council NPRM Comments at 7-8; Council NPRM Reply Comments at 3; Cristo Rey NPRM Reply Comments at 2; EdLiNC NPRM Comments at 31; FFL NPRM Comments at 46-48; Fox Chapel NPRM Reply Comments at 3-4; Knox County NPRM Comments at 9; Multi-Cultural Academy NPRM Reply Comments at 2; Riverside USD NPRM Reply Comments at 11.

502 *See* 47 C.F.R. § 54.504(a)(1)(ix); Universal Service Schools and Libraries Services Ordered and Certification Form, OMB 3060-0806 (December 2013) (FCC Form 471) (requiring that applicants certify in Item 32 "that the discount level used for shared services is conditional, in future years, upon ensuring that the most disadvantaged schools and libraries that are treated as sharing in the service receive an appropriate share of benefits from those services").

503 *See* 47 C.F.R. § 54.505.

such an omission if it catches the error when it receives from USAC its Receipt Acknowledgement Letter (RAL), which summarizes the district's application and funding requested.[504] However, if it does not notice the error by the time its funding commitment letter is issued, but it is later discovered by USAC as part of a post-commitment review – for example, an audit or other assessment – that eligible school technically is not allowed to receive E-rate funding, under the current procedures, even though it is an eligible school and the services were meant to serve the entire district.[505] This procedure exists because omission of one school from a discount rate calculation can change the discount the district receives, as each school's discount is calculated separately. With our move to a district-wide discount calculation, districts will be including all the students from all their schools in their discount calculation. As such, we find that an applicant can add eligible schools within its district that were inadvertently omitted from its applications, even after the deadline for making changes to the FCC Form 471.

219. We recognize that some schools use a federally approved alternative mechanism, such as a survey alternative, to determine their discount percentage.[506] We do not anticipate any negative ramifications to districts with any such schools because, regardless of the method a school district uses to establish its discount, it must determine a district-wide percentage of students eligible for the free and reduced lunch program from the total student population.

220. While we do not specifically define the term "school district," an applicant should determine its discount using all E-rate eligible students in schools that fall under the control of a central educational agency. Commenters note that private and charter schools generally operate independently of the main public school district and are individually responsible for their finances and administration.[507] We therefore agree with commenters that these educational entities and local public school districts should calculate their discounts separately if not affiliated financially or operationally with a school district.[508] Independent charter schools, private schools, and other eligible educational facilities that are seeking support for more than one school building should factor all students in facilities under the control of their central administrative agency into the discount calculation.

221. Consortia applications will continue to use a simple average of all members' discounts to calculate the overall consortium discount, but will now be required to use each member's district-wide discount. Consistent with current Commission rules, we require that for services used only by an

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[504] *See Request for Review of the Decision of the Universal Service Administrator by Bishop Perry Middle School, New Orleans, LA et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 21 FCC Rcd 5316 (2006) (waiving the Commission's rules to allow applicants additional time to file their FCC Forms 471 where applicants committed ministerial or clerical errors); *see also* USAC, Schools and Libraries Program, Competitive Bidding, Ministerial & Clerical Errors, http://www.usac.org/sl/applicants/step02/clerical-errors.aspx (last visited June 18, 2014); *Requests for Review of Decisions of the Universal Service Administrator by Archer Public Library et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 23 FCC Rcd 15518 (Wireline Comp. Bur. 2008); *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Ann Arbor Public Schools et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 25 FCC Rcd 17319 (Wireline Comp. Bur. 2010); *Request for Waiver and Review of Decisions of the Universal Service Administrator by Erie I BOCES et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 28 FCC Rcd 13381 (Wireline Comp. Bur. 2013) (granting appeals and petitions for reconsideration from petitioners seeking a waiver of the Commission's E-rate rules in order to correct ministerial or clerical errors on petitioners' E-rate applications or associated forms).

[505] *See* USAC, Schools and Libraries Program, Competitive Bidding, Ministerial & Clerical Errors, http://www.usac.org/sl/applicants/step02/clerical-errors.aspx (last visited June 18, 2014).

[506] *See* 47 C.F.R. § 54.505(b)(1); USAC, Schools and Libraries Program, Alternative Discount Mechanisms, http://www.usac.org/sl/applicants/step04/alternative-discounts.aspx (last visited June 18, 2014).

[507] *See, e.g.*, EdLiNC NPRM Comments at 30.

[508] *Id*. at 30-31.

individual institution, the applicable discount rate for the services will be determined based on the applicable district-wide discount rate for that individual school or library, not the consortium's overall discount rate.[509] We realize that there will be shared services that cannot, without substantial difficulty, be identified with particular users or be allocated directly to particular entities. In those situations, we will continue to require the state, school district, or library system to "strive to ensure" that each school and library in a consortium receives the full benefit of the discount on shared services to which it is entitled.[510] Using the district-wide average, should help prevent consortia applications from being held up due to changes in building status, such as school closings and consolidations, so long as there is no indication of waste, fraud or abuse at the invoicing stage. We realize, however, that using a district-wide average in place of the individual consortium member discount still does not provide a "weighted average" for consortia members that better indicates the discount to which members would have been entitled if they had applied for E-rate services on their own. Therefore, we seek additional comment on a proposal to use a weighted average in the accompanying FNPRM.[511]

#### 2. Updating the Definition of "Rural"

222. In keeping with our commitment to ensuring that rural schools and libraries are able to afford E-rate supported services, we adopt the U.S. Census Bureau (Census) definitions of rural and urban for the purpose of determining whether an E-rate applicant qualifies for an additional rural discount.[512] In so doing, we adopt one of the approaches the Commission proposed in the *E-rate Modernization NPRM* to modernizing the definitions of "rural" and "urban" in section 54.505(b)(3) of our rules.[513] While many commenters supported an alternative proposal to adopt the U.S. Department of Education's National Center for Education Statistics (NCES) definition for determining whether a school is rural,[514] we find that using Census data avoids several administrative challenges that would arise were we to adopt the NCES classification system. For instance, commenters noted that there can be delays in obtaining NCES codes for new schools[515] and some E-rate-eligible entities do not have an NCES designation.[516] Using Census data ensures that all E-rate-eligible schools and libraries, even those without an NCES code (or the library-equivalent FCES code) can readily determine their urban/rural status.[517] We also note that the Census definition fully overlaps with the geography defined by NCES as "rural."[518]

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[509] *See In the Matter of Federal-State Joint Board on Universal Service; Changes to the Board of Directors of the National Exchange Carrier Association, Inc.*, CC Docket No. 97-21 et al., Fourth Order on Reconsideration and Report and Order, 13 FCC Rcd 5318, 5437-38, para. 205 (1997) (the amount of support for a consortium member should be based on the discount rate to which the member is entitled if it is not unreasonably burdensome for a consortium lead to calculate).

[510] *Id.* at para. 206.

[511] *See infra* section VIII.D.1.

[512] *See* Dep't of Commerce, Bureau of the Census, Qualifying Urban Areas for the 2010 Census, 77 Fed. Reg. 18652 (Mar. 27, 2012); *see also* Bureau of the Census, 2010 Census Urban and Rural Classification and Urban Area Criteria, http://www.census.gov/geo/reference/ua/urban-rural-2010.html (last visited June 18, 2014).

[513] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11379-81, paras. 276-81.

[514] *See, e.g.*, AdTec NPRM Comments at 5; Alaska EED NPRM Comments at 19; E-rate Central NPRM Comments at 8; Hawaii NPRM Comments at 7-8; Iowa DOE NPRM Comments at 16; SECA NPRM Comments at 28; ALA NPRM Comments at 14; *but see* NAIS NPRM Comments at 2-3 (could be unintended impacts with NCES rural definition); UEN NPRM Comments at 4, 20 (stating that NCES not a good fit for schools and libraries).

[515] *See, e.g.*, E-rate Central NPRM Comments at 8.

[516] *See, e.g.*, NAIS NPRM Comments at 2-3; WVDE NPRM Comments at 104.

[517] *See* Bureau of the Census, 2010 Census Urban Area Reference Maps, http://www.census.gov/geo/maps-data/maps/2010ua.html (last visited June 18, 2014); Bureau of the Census, American Fact Finder,

(continued…)

223. Our current definition of "rural" for purposes of the E-rate program is outdated.[519] By contrast, the Census data is relatively new and, the urban boundaries are adjusted annually to remain current.[520] The Census definition classifies a particular location as rural or urban based on population density and geography, and other criteria involving non-residential development.[521] For the 2010 Census, the Census Bureau defined urban areas as the densely settled core of census tracts or blocks that met minimum population density requirements (50,000 people or more), along with adjacent territories of at least 2,5000 people that link to the densely settled core.[522] "Rural" encompasses all population, housing, and territory not included within an urban area.[523] Therefore, beginning with funding year 2015, schools and libraries located in areas that are not located in urban areas, as defined by the most recent decennial Census, will be considered rural for the purposes of the E-rate program. We direct USAC to post a tool on its website that will allow schools and libraries to obtain information regarding whether they are classified as urban or rural under the new definition. We note that the Census Bureau already offers a tool on its website that provides the urban/rural status of any U.S. address.[524]

224. In the *E-rate Modernization NPRM*, we sought comment on how to treat school districts and library systems with a combination of rural and urban schools and libraries.[525] We conclude that any school district or library system that has a majority of schools or libraries in a rural area that meets the statutory definition of eligibility for E-rate support will qualify for the additional rural discount. This approach mirrors the methodology used by NCES to determine whether a school district is urban or rural and is supported by commenters in the record.[526] This approach is also consistent with the method the

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http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?ref=addr&refresh=t#none (last visited June 18, 2014).

[518] Those areas identified by NCES as rural—"rural-fringe," "rural-distant," or "rural-remote"—are gradations based on the Census Bureau's overarching definition of rural. *See* U.S. Dept. of Education, National Center for Education Statistics, http://nces.ed.gov/ccd/rural_locales.asp (last visited June 18, 2014) (NCES Identification of Rural Locales).

[519] The current E-rate rural definition was established to define rural areas by the Office of Rural Health Care Policy (ORHP). *Universal Service First Report and Order*, 12 FCC Rcd at 9042, para. 504. ORHP stopped using the definition more than a decade ago and has not updated the Goldsmith Modification beyond the 2000 Census data. *See School and Libraries Third Report and Order*, 18 FCC Rcd at 26939-41, paras. 67-69 (2003).

[520] *See, e.g.*, Bureau of the Census, Current Lists of Metropolitan and Micropolitan Statistical Areas and Delineations, http://www.census.gov/population/metro/data/metrodef.html (last visited June 18, 2014) (noting that an area's geographic composition is updated annually to reflect the most recent Bureau of the Census population estimates).

[521] Dep't of Commerce, Bureau of the Census, Urban Area Criteria for the 2010 Census, 76 Fed. Reg. 53030-1 (Aug. 24, 2011); Bureau of the Census, 2010 Census Urban Area FAQs, http://www.census.gov/geo/reference/ua/uafaq.html (last visited June 18, 2014).

[522] *Id.*

[523] *Id.*

[524] Bureau of the Census, American Fact Finder, http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?ref=addr&refresh=t#none (last visited June 18, 2014).

[525] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11341, para. 130.

[526] *See, e.g.*, SECA NPRM Comments at 26; Iowa DOE NPRM Reply Comments at 19. According to NCES, "[i]f 50 percent or more of the public school students attend schools with the same locale code, that locale code is assigned to the district. For example, if 60 percent of students were enrolled in schools with a "rural - distant" locale code, and 40 percent were enrolled in schools with a "town - small" locale code, the district would be assigned a "rural – distant" locale code. *See* NCES Identification of Rural Locales.

Commission uses in the rural health care program context.[527] We further direct USAC to take steps to minimize the burden of reporting rural or urban classification in conjunction with the requirement to phase in all-electronic filing over the next three years.[528] For example, USAC should ensure that the FCC Form 471 allows applicants to certify that the location of the schools or libraries listed have not changed from the previous year's filing, or does not require applicants to provide classification data in cases where the applicant's status as "urban" or "rural" does not affect their discount rate.

### 3. Addressing the NSLP Community Eligibility Provision

225. Consistent with our goal of making the E-rate application process and other E-rate processes fast, simple and efficient, beginning with funding year 2015, we will allow schools and school districts that are participating in the NSLP CEP[529] to use the same approach for determining their E-rate discount rate as they use for determining their NSLP reimbursement rate.[530] Specifically, schools utilizing the CEP shall calculate their student eligibility for free or reduced priced lunches by multiplying the percentage of directly certified students by the CEP national multiplier.[531] This number shall then be applied to the discount matrix to determine a school district's discount for eligible E-rate services.[532] Libraries' discount percentages will continue to be based on that of the public school district in which they are physically located.[533] Schools participating in the CEP will not be considered to have a greater than 100 percent student eligibility for purposes of determining the district-wide discount rate for E-rate services, priority access to category two services, or for any other E-rate purposes.

226. Traditionally, schools that participate in the NSLP collect, on an annual basis, individual eligibility applications from each of their students seeking free or reduced-priced lunches.[534] Schools use the NSLP eligibility data for many other purposes, including calculating an applicant's E-rate discount

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[527] *See Healthcare Connect Fund Order*, 27 FCC Rcd 16678, 16707, para. 61 (noting that non-rural health care providers may receive support only if they participate in consortia that include a majority (more than 50 percent) of sites that are rural health care providers).

[528] *See supra* section VI.A.5.

[529] The CEP was previously known as the community eligibility option (CEO) and was created as part of the Healthy, Hunger-Free Kids Act of 2010 (HHFKA). *See* Healthy, Hunger-Free Kids Act of 2010 § 104(a). In order to be eligible for the CEP, schools and local educational agencies must: (1) have a 40 percent or greater minimum level of "directly certified," i.e., identified students (students certified for free meals through means other than individual household applications, such as the Supplemental Nutrition Assistance Program (SNAP)), for free meals by April 1st of the school year prior to using the provision; (2) serve free lunch and breakfast to all students for four successive school years; and (3) cover with non-federal funds the cost of providing free meals to all students in excess of the amount received in federal assistance. For more information regarding the CEP, *see* the United States Department of Agriculture, Food and Nutrition Service, School Meals, Community Eligibility Provision, http://www.fns.usda.gov/school-meals/community-eligibility-provision (last visited June 18, 2014) (CEP Program Guidance).

[530] *See* 47 C.F.R. § 54.505(b). The Commission sought comment on changes to the NSLP due to the implementation of the CEP and data to inform its ability to assess the extent and impact of the challenges related to the CEP as part of the *E-rate Modernization NPRM*. *See E-rate Modernization NPRM*, 28 FCC Rcd at 11381-86, paras. 282-293. Schools utilizing the CEP should be sure to verify their directly certified student numbers against the state's database to ensure accuracy in student eligibility.

[531] *See infra* para. 229.

[532] 47 C.F.R. § 54.505(c).

[533] 47 C.F.R. § 54.505(b)(2).

[534] *See* United States Department of Agriculture, Food and Nutrition Service, National School Lunch Program, http://www.fns.usda.gov/cnd/lunch/ (last visited June 18, 2014).

rate.[535] However, schools increasingly have the option of participating in the CEP,[536] which neither requires nor permits schools to collect individual student eligibility information.[537] A school is eligible for community eligibility if at least 40 percent of its students are "directly certified," i.e., identified for free meals through means other than household applications (for example, students directly certified as receiving benefits from the Supplemental Nutrition Assistance Program).[538] To compensate for low-income families not reflected in the direct certification data, schools apply a standard, national factor (multiplier), currently set at 1.6, to their identified student population in order to determine the total percentage of meals for which they will be reimbursed by the USDA.[539] Schools are required to renew their direct certification numbers once every four years.[540] If, during the four-year cycle, a school's percentage of identified students increases, the school may use the higher percentage in determining USDA reimbursement.[541] If the percentage of identified students decreases, the school may continue to use the original percentage for the remainder of the four-year eligibility period.[542]

227. We agree with commenters who recommend that we allow schools and school districts that participate in the CEP to determine their discount rate for E-rate by treating the number of directly certified students multiplied by the national multiplier as the percentage of students eligible for NSLP.[543] The record demonstrates that the CEP provides an estimate of the percentage of students eligible for free and reduced-price meals in participating schools comparable to the poverty percentage that would be

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[535] For example, the U.S. Department of Education used the NSLP data for Title I purposes and recently provided guidance on how to use CEP eligibility data as eligible poverty data for Title I purposes. *See* "The Community Eligibility Provision and Selected Requirements under Title I, Part A of the Elementary and Secondary Education Act of 1965, as amended." *See* United States Department of Agriculture, Food and Nutrition Service, Community Eligibility Provision: Department of Education Title I (Memo Code SP 19-2014) (dated Jan. 31, 2014), http://www.fns.usda.gov/sites/default/files/SP19-2014os.pdf (last visited June 18, 2014).

[536] According to a 2012 analysis performed by the Food and Nutrition Service (FNS) of the USDA, less than 10 percent of school food authorities (which are generally equivalent to school districts) in the nation are eligible to participate in the CEP on a district-wide basis – roughly 1,500 out of almost 19,000. *See* Council Comments at 15; United States Department of Agriculture, Food and Nutrition Service, Community Eligible Option: Guidance and Process for Selection of States for School Year 2012-2013 (Memo Code SP 12-2012), Attachment C (dated Feb. 9, 2012), http://www.fns.usda.gov/cnd/Governance/Policy-Memos/2012/SP12-2012%20os.pdf (last visited June 18, 2014).

[537] *See* CEP Program Guidance. The CEP has been phased in over a three-year period, starting with the school year beginning July 1, 2011, with the option available nationwide to all eligible schools and local educational agencies for the school year beginning July 1, 2014. *See* HHFKA; CEP Program Guidance.

[538] *See supra* n.529; CEP Program Guidance; HHFKA, § 104(a)(1)(F)(viii)(I).

[539] *See* HHFKA, § 104(a)(1)(F)(vii)(I); CEP Program Guidance. The remaining percentage of meals, equaling up to 100 percent, is reimbursed at the federal reduced reimbursement rate. *See* HHFKA, § 104(a)(1)(F)(v)(II)(bb); CEP Program Guidance. Schools are then responsible for paying the difference between the federal reimbursement rate and the total cost of meals for all students. *See* CEP Program Guidance.

[540] A participating school that meets the identified students percentage of 40 percent in their fourth year may immediately begin another four-year cycle under the CEP. *Id.* If a participant falls below the 40 percent identified students minimum threshold, but remains at 30 percent or higher, the school may exercise a "grace year." *See* HHFKA, § 104(a)(1)(F)(v)(I); CEP Program Guidance.

[541] CEP Program Guidance.

[542] *Id.*

[543] *See, e.g.*, SECA NPRM Reply Comments at 21; E-Rate Central NPRM Comments at 13-14; WVDE NPRM Comments at 108-109; Council NPRM Comments at 14-15; NYSED NPRM Reply Comments at 8; Riverside NPRM Comments at 5; SECA NPRM Comments at 51; Alaska EED NPRM Comments at 20 (recommending the use of the USDA's CEP data for purposes of determining an applicant's poverty level under the E-rate program).

obtained in a non-CEP school, and does not unfairly inflate E-rate discounts on eligible services.[544] As E-Rate Central notes in its comments, schools and school districts electing the CEP already have high low-income populations and most are already at the current 90 percent discount level.[545] Thus, a multiplier that raises the percentage of students eligible for NSLP from, for example, an 81 percent to 89 percent level, would have no effect on the school's E-rate discount rate.[546]

228. Allowing schools and school districts that participate in the CEP to use their CEP data to determine eligibility for E-rate support will also, as the West Virginia Department of Education explains, help to alleviate confusion and additional burdens on schools and school districts by eliminating the need for additional paperwork and administrative costs.[547] Moreover, by relying on a USDA change intended in large part to reduce paperwork and other burdens on schools, this decision is consistent with our other measures taken in this Report and Order to alleviate applicant administrative burdens. Additionally, as the State E-rate Coordinators' Alliance notes, permitting the use of the CEP data for E-rate discount eligibility provides a predictable means of calculating the discount level for new CEP schools.[548]

229. We realize that the USDA has the statutory authority to change the multiplier to a number between 1.3 and 1.6, and to apply a different multiplier for different schools or local educational agencies beginning on or after July 1, 2014.[549] To simplify schools' administrative burden, we will require CEP applicants to use the same multiplier under the E-rate program for determining their poverty level as required by the USDA for their reimbursement under the CEP.[550] Unlike applicants to the current E-rate program, CEP applicants will not be required to calculate their discount rate every year, but for clarity and administrative ease, shall use the calculation that they use during the course of a four-year CEP cycle.[551] However, if an applicant adjusts that calculation for purposes of the CEP, it must also adjust it for purposes of E-rate support.[552]

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[544] *See, e.g.*, WVDE NPRM Comments at 109; E-Rate Central NPRM Comments at 14; SECA NPRM Comments at 51; Council NPRM Comments at 15 (recommending that the Commission adopt and allow schools to use the same multiplier as used by the USDA).

[545] *See* E-Rate Central NPRM Comments at 14.

[546] *Id.* The E-rate program currently allows applicants to claim the highest 90 percent discount if more than 75 percent of students qualify for the NSLP. *See* 47 C.F.R. § 54.505(c).

[547] *See* WVDE NPRM Comments at 108.

[548] *See* SECA NPRM Reply Comments at 19.

[549] *See* HHFKA, § 104(a)(1)(F)(vii)(II). The USDA has indicated that it will not change to the multiplier for the school year 2014-2015, and that any future change to the multiplier will be communicated in advance of implementation, through the Federal Register. *See* United States Department of Agriculture, Food and Nutrition Service, Community Eligibility Provision: Guidance and Q & A's (Memo Code SP 21-2014) at Attachment 4 (dated Feb. 24, 2014), http://www.fns.usda.gov/sites/default/files/SP21-2014os.pdf (last visited June 18, 2014).

[550] *See, e.g.*, WVDE NPRM Comments at 109; E-Rate Central NPRM Comments at 14; SECA NPRM Comments at 51; Council NPRM Comments at 15 (recommending that the Commission adopt and allow schools to use the same multiplier as used by the USDA).

[551] Under the CEP, during a four-year cycle, if a school's percentage of identified students increases, the school may use that percentage for determining USDA reimbursement. *See* CEP Program Guidance. If the percentage of identified students decreases, the school may continue to use the original percentage for the remainder of the four-year eligibility period. *Id.* A participating school that meets the identified students percentage of 40 percent in their fourth year may immediately begin another four year cycle under the CEP. *Id.* If a participant falls below the 40 percent identified students minimum threshold, but remains at 30 percent or higher, the school may exercise a "grace year." *See* HHFKA, § 104(a)(1)(F)(v)(I); CEP Program Guidance.

[552] We remind CEP applicants that, as part of USAC's routine program integrity assurance review, participating CEP schools and school districts may be required to provide documentation supporting their requested discount level

(continued…)

### 4. Modifying the Requirements for Using School-Wide Income Surveys

230. We also direct USAC to revise its procedures to require schools and school districts seeking to calculate their E-rate discounts by using a school-wide income survey to base their E-rate discount rate only on the surveys they actually collect beginning with funding year 2015.[553] Under the E-rate program, instead of using NSLP data, schools and school districts can choose to use a federally approved alternative mechanism, such as a survey, as a proxy for poverty when calculating E-rate support.[554] Until now, a school using a school-wide income survey needed to collect surveys from at least 50 percent of its students. It could then calculate the percentage of NSLP-eligible students from the returned surveys, and project that percentage of eligibility for the entire school population, for purposes of determining its discount rate under the E-rate program.[555] We agree with New Hope that allowing schools to use an alternative method for determining eligibility is essential.[556] However, we are concerned that permitting schools to project the number of NSLP-eligible students may provide an artificially higher eligibility percentage.[557] Therefore, in order to help protect against incentives to artificially inflate eligibility percentages, beginning with funding year 2015, schools electing to use a school wide income survey to determine the number of students eligible for NSLP must calculate their discount based only the surveys returned by their students that demonstrate that those students would qualify for participation in the free and reduced school lunch program to determine the school's discount level. For example, a school with 100 students that distributes and collects 60 surveys showing that 52 students meet the eligibility criteria for the free and reduced lunch program would be considered to have a 52 percent eligibility percentage and therefore qualify for an 80 percent discount rate.

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based upon their CEP eligibility. *See* USAC, Schools and Libraries Program, Application Review, http://www.universalservice.org/sl/applicants/step05/default.aspx (last visited June 18, 2014).

[553] *See* USAC, Schools and Libraries Program, Survey Guidelines for Alternate Discount Mechanisms, http://www.universalservice.org/sl/applicants/step05/alternative discount-mechanisms.aspx (last visited June 18, 2014).

[554] *See Universal Service First Report and Order*, 12 FCC Rcd at 9044-45, para. 510. Schools electing not to use an actual count of students eligible for the NSLP may use only the federally-approved alternative mechanisms contained in the Elementary and Secondary Education Act of 1965, *amended by* No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002). Pursuant to this Act, private schools without access to the same poverty data that public schools use to count children from low-income families may use comparable data either collected through alternative means such as a survey or from existing sources such as Aid to Families with Dependent Children or tuition scholarship programs. Schools using a federally-approved alternative mechanism may also use participation in other income-assistance programs, such as Medicaid, food stamps, or Supplementary Security Income to determine the number of students that would be eligible for the NSLP. *See* Instructions for Completing the Schools and Libraries Universal Service, Services Ordered and Certification Form (FCC Form 471), OMB 3060-0806, at 14-15 (December 2013).

[555] For example, a school with 100 students sent a survey to the 100 households of those students, and 75 of those households returned the questionnaire. The school finds that the incomes of 25 of those 75 households are at or below the income eligibility guidelines for NSLP. Consequently, 33 percent (25 / 75 * 100) of the students from those households can be counted as eligible for NSLP. The school may then project from that sample to conclude that 33 percent of the total enrollment, or 33 of the 100 students in the school, can be counted as eligible for NSLP. *See* USAC, Schools and Libraries Program, Applying for Discounts: Alternative Discount Mechanisms, http://www.usac.org/sl/applicants/step04/alternative-discounts.aspx (last visited June 18, 2014). The school then references the discount matrix using their 33 percent NSLP eligibility to determine its discount level. 47 C.F.R. § 54.505(c).

[556] *See* New Hope NPRM Comments at 4.

[557] *See, e.g.*, Alaska EED NPRM Comments at 19-20. *But see* CRW NPRM Comments at 7 (supports retaining 50 percent return rate for school-wide income surveys).

231. We considered the proposal offered by the Alaska Department of Education & Early Development to allow projections based on a 75 percent return rate.[558] We agree that would be more accurate than the current 50 percent return rate. But, on balance, we find that it is more equitable to base the discount rate for schools that conduct surveys on the actual number of students whose survey responses demonstrate that they meet the NSLP criteria. We thus direct USAC to amend its procedures to require actual survey results for determining a school's NSLP-eligibility from the surveys. We also take this opportunity to remind applicants that, upon request from any representative (including any auditor) appointed by a state education department, USAC, the Commission, or any local, state or federal agency with jurisdiction over the entity, they are required to provide copies of all returned surveys supporting their discount eligibility.[559]

### C. Simplifying the Invoicing and Disbursement Processes

232. Consistent with our goal of reducing the administrative burdens on applicants and service providers, we take several measures related to the invoicing process to simplify and expedite funding disbursement. First, we revise our rules to allow an applicant that pays the full cost of the E-rate supported services to a service provider to receive direct reimbursement from USAC. Second, we adopt rules codifying USAC's existing invoice filing deadline, while allowing applicants to request and automatically receive a single one-time 120-day extension of the invoicing deadline. Taken together these modifications will yield an invoicing process that is simpler and clearer, while still providing protections against waste, fraud, and abuse.

#### 1. Allowing Direct Invoicing

233. In response to widespread support in the comments, we revise sections 54.504 and 54.514 of our rules to allow an applicant that pays the full cost of the E-rate supported services to a service provider to receive direct reimbursement from USAC, beginning with funding year 2016.[560] We agree with the commenters who argue this change would improve the administrative process by eliminating unnecessary invoicing steps, which in turn would speed disbursements to schools and libraries.[561] We also agree with applicants and service providers who argue that revising the invoicing process to allow applicants to receive direct reimbursement from USAC is a common-sense approach to simplifying the administration of the E-rate program.[562] Further, we agree with those commenters who argue that providing an option for reimbursing schools and libraries that have paid upfront for E-rate supported services is consistent with section 254 of the Act.[563] As the courts have found, section 254 of the Act

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[558] *See* Alaska EED NPRM Comments at 19-20 (stating that a higher percentage of returned surveys would provide for a more accurate determination of the true discount percent and that 75-80 percent of surveys returned is not unreasonable for a district).

[559] *See* 47 C.F.R § 54.516; *infra* paras. 262-263.

[560] *See* 47 C.F.R. §§ 54.504, 54.514. Specifically, we revise section 54.514 of our rules by deleting paragraph (b) which provided a deadline for service providers to reimburse applicants under the previous BEAR process. We also delete the reference to applicants receiving payment from service providers in section 54.514(a) of our rules. *See* 47 C.F.R. § 54.514 as amended herein.

[561] *See, e.g.*, Adams County NPRM Reply Comments at 1-2; ALA NPRM Comments at 30; Amy Biehl NPRM Comments at 2; Arkansas NPRM Comments at 30; AT&T NPRM Comments at 6, 15; Blackboard Engage NPRM Comments at 29; CALET NPRM Comments at 3; Cbeyond NPRM Reply Comments at 12; CenturyLink NPRM Comments at 27-28; SECA NPRM Reply Comments at 23-24. *See also* KSDE NPRM Comments at 6; SECA NPRM Comments at 45-49; Sprint NPRM Comments at 12-13; USTA NPRM Comments at 13.

[562] *See, e.g.*, AT&T NPRM Comments at 15; Sprint NPRM Comments at 12; TETA NPRM Reply Comments at 3.

[563] *See, e.g.*, Adams County NPRM Reply Comments at 1-2; ALA NPRM Comments at 30; AT&T NPRM Comments at 15; Blackboard Engage NPRM Comments at 29; Illinois Library NPRM Reply Comments at 3; Miami-Dade NPRM Comments at 14; Seattle Library NPRM Reply Comments at 1; Sprint NPRM Comments at 12; TETA NPRM Reply Comments at 3.

gives the Commission broad discretion in administering the E-rate program.[564] Nothing in the Act prevents the payment of universal service funds directly to applicants in the schools and libraries program.[565] The only requirement in the Act regarding reimbursement is that the service provider is made whole, either through an offset against their contribution obligations, or using the Commission's universal service mechanism.[566] We find that the revised Billed Entity Reimbursement (BEAR) process we adopt today provides sufficient documentation to demonstrate that the applicant has fully paid for the requested services and is entitled to direct reimbursement from USAC, thereby satisfying Congress's statutory requirement.

234. Under the current E-rate program's Billed Entity Applicant Reimbursement (BEAR) process, if an applicant agrees to pay its service provider in full before USAC has reimbursed the provider for E-rate supported services, the applicant must submit an FCC Form 472 (BEAR form) to USAC but only after getting approval from the service provider. After making a funding commitment and receiving invoices for eligible services, USAC will then process payments to the service provider, which in turn passes funds through to the applicant. The BEAR process requires significant coordination between the applicant and service provider for the applicant to receive payment.[567] If a service provider is unable to process a BEAR form because, for example, the service provider has gone out of business or has filed for bankruptcy protection prior to the applicant submitting the BEAR form, another service provider (the Good Samaritan) can agree to serve as the conduit and receive payment from USAC for purposes of passing the payment through to the applicant.[568] By removing the requirement that E-rate funds pass through the service provider to the applicant, we remove the need for a Good Samaritan procedure.[569]

235. This change we adopt today will only affect applicants that avail themselves of the BEAR process and elect to pay the entire cost of the discounted service in advance of USAC's reimbursement. Some commenters express concern that applicants should continue to have the option of the SPI process, paying only their portion of the price of eligible services and requiring the service provider to wait for payment from USAC for the remaining portion of the price of the eligible services.[570] We take this opportunity to reiterate that E-rate applicants continue to have the option of electing BEAR or SPI reimbursement.[571] Thus, when the applicant pays only the discounted cost of the services directly to the

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[564] *See* 47 U.S.C. § 254; *see also Texas Office of Public Utility Counsel v. F.C.C.*, 183 F.3d 393, 411 (5th Cir. 1999) ("Rather than setting up specific conditions or requirements, § 254(b) reflects a Congressional intent to delegate these difficult policy choices to agency discretion.")

[565] *See* 47 U.S.C. § 254(h)(1)(B); SECA NPRM Reply Comments at 23-24.

[566] 47 U.S.C. § 254(h)(1)(B).

[567] *See* 47 C.F.R. §§ 54.504, 54.514; *see also* Schools and Libraries Universal Service, Billed Entity Applicant Reimbursement (BEAR) Form, OMB 3060-0856 (July 2013) (BEAR Form). Applicants also have the option of using the Service Provider Invoicing (SPI) process. Under the SPI process the applicant pays only the reduced cost of the services directly to the service provider, and then the service provider must file an FCC Form 473 (SPI Form) with USAC to receive its reimbursement. *See* Schools and Libraries Universal Service, Service Provider Invoice Form, OMB 3060-0856 (July 2013) (SPI Form).

[568] *See* Universal Service Administrative Company, Schools and Libraries Program, Administrative Procedures, CC Docket No. 02-6, at 19 (filed Oct. 31, 2005) (USAC 2005 Administrative Procedures); USAC, Schools and Libraries Program, Good Samaritan Solution for Certain Applicants, http://www.usac.org/sl/applicants/before-youre-done/good-samaritan.aspx_ (last visited June 18, 2014).

[569] *See* E-rate Central NPRM Comments at 24.

[570] *See* COMPTEL NPRM Reply Comments at 19; Iowa DOE NPRM Comments at 15.

[571] *See generally*, USAC, Schools and Libraries Program, Invoice USAC, http://www.usac.org/sl/applicants/step07/ (last visited June 18, 2014). NCEA indicates that due to religious purposes, it needs to ensure that they were not receiving "government funds." NCEA NPRM Comments at 2.

service provider through the SPI process, the service provider will continue to file a SPI form with USAC to receive reimbursement.

236. Under the revised BEAR process we adopt today, an applicant filing an FCC Form 471 and selecting reimbursement through the BEAR process will be required to have on file with USAC current and accurate information concerning where payments should be sent.[572] In accordance with the Debt Collection Improvement Act of 1996 (DCIA), all universal service disbursements must be made by electronic funds transfer.[573] Accordingly, schools and libraries that choose to utilize the BEAR process must provide USAC with bank account information from a bank that can accept electronic transfers of money. We expect there will be additional information that USAC will also need to process payment to applicants, and we direct the Bureau and OMD to work with USAC to collect from applicants that use the new BEAR process all the information USAC will need to process such payments while protecting the integrity of the program.[574] Further, for purposes of program integrity, payments will not be made to consultants, but only directly to schools or libraries.

237. We direct the Bureau and OMD to work with USAC to implement the new direct reimbursement process. We recognize that the current FCC Form 472 requires a service provider to certify that: (1) it must remit the discount amount authorized by the fund administrator to the Billed Entity Applicant; (2) it must remit payment of the approved discount amount to the Billed Entity Applicant; and (3) it is in compliance with the rules and orders governing the schools and libraries universal service support program.[575] Because service providers will no longer serve as a pass-through for payment, they will not be required to approve every FCC Form 472. However, the service provider certifications on the current FCC Form 472 are crucial for protecting the program against waste, fraud and abuse. We therefore revise section 54.504(f) of our rules by adding a subparagraph requiring each service provider to certify on the FCC Form 473 that the service provider has complied with the E-rate invoicing rules and regulations.[576] Specifically, the service provider will be required to certify that the bills or invoices that it provides to applicants are accurate, and that the services it provides are eligible for E-rate support.[577]

### 2. Adopting Invoicing Deadlines

238. We also codify USAC's existing invoice filing deadline to allow applicants to request and automatically receive a single one-time 120-day extension of the invoicing deadline.[578] Codifying the invoicing deadline will provide certainty to applicants and service providers. Providing certainty on invoicing deadlines will also allow USAC to de-obligate committed funds immediately after the invoicing deadline has passed, providing increased certainty about how much funding is available to be carried

[572] If the information changes after an applicant files its FCC Form 471, the applicant shall provide USAC with the new information as soon as possible.

[573] *See Debt Collection Improvement Act of 1996*, Pub. L. No. 104-134, 110 Stat. 1321, 1358 (1996); *see also* USAC, Schools and Libraries Program, Service Providers, Disbursements, http://www.usac.org/sp/about/disbursements/default.aspx (last visited June 18, 2014).

[574] We expect that USAC will need to collect much of the same information from schools as it currently collects from service providers using the FCC Form 498 (the Service Provider Identification Number and General Contact Form) which is used to collect remittance, payment, and contact information for service providers that receive support from all of the universal service programs.

[575] *See* BEAR Form.

[576] *See* 47 C.F.R. § 54.504(f).

[577] *See* FCC Form 473, Block 2.

[578] *See, e.g.*, Amy Biehl NPRM Comments at 2; CenturyLink NPRM Comments at 26-27; FFL NPRM Comments at 59-60; Iowa DOE NPRM Comments at 15. *See also* Appendix A.

forward in future funding years.[579] The invoice deadline extension rule will be effective beginning in funding year 2014.

239. As the Commission has explained, filing deadlines are necessary for the efficient administration of the E-rate program.[580] We agree with commenters that the current invoice deadline – the latter of 120 days after the last day to receive service,[581] or the date of the FCC Form 486 notification letter[582] – provides the right balance between the need for efficient administration of the program, and the need to ensure that applicants and service providers have sufficient time to finish their own invoicing processes.[583] We also agree that codifying the existing deadline provides certainty to program participants, while generally providing sufficient flexibility based on an applicant's or service provider's specific circumstances.[584]

240. At the same time, we agree with commenters that there may be circumstances beyond some applicants' or service providers' control that could prevent them from meeting the 120-day invoice filing deadline.[585] Therefore, we adopt a rule allowing applicants to seek and receive from USAC a single one-time invoicing extension for any given funding request, provided the extension request is made no later than what would otherwise be the deadline for submitting invoices: the latter of 120 days after the last day to receive service, or the date of the FCC Form 486 notification letter.[586] By adopting such a rule, we eliminate the need for applicants and service providers to identify a reason for the requested extension and the need for USAC to determine whether such timely requests meet certain criteria, which will ease the administrative burden of invoice extension requests on USAC.[587] In the interest of efficient program administration, USAC shall grant no other invoicing deadline extensions. Moreover, in considering waivers of our new invoicing rules, we find that it is generally not in the public interest to waive our invoicing rules, and therefore the Bureau should grant waivers of those rules in extraordinary circumstances.

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[579] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11372-73, paras. 254-58 (seeking comments on changes to the program to reduce the amount of unused funds).

[580] *See Requests for Review of the Decisions of the Universal Service Administrator by Canon-McMillan School District et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 23 FCC Rcd at 15555, 15558-9, para. 9 (Wireline Comp. Bur. 2008) (*Canon-McMillan Order*).

[581] An applicant may file an FCC Form 500 to request an extension of the service delivery and installation deadline for non-recurring services. *See* Schools and Libraries Universal Service, Adjustment to Funding Commitment and Modification to Receipt of Service Confirmation Form, OMB 3060-0856 (December 2013).

[582] The FCC Form 486 notification letter contains the service start date, which USAC may adjust due to a late filed FCC Form 486; the funding commitment, which USAC also may adjust due to a late-filed FCC Form 486, or other compliance issues; directions for appealing the service start date or funding commitment change decisions; information regarding the next steps in the application process. *See* USAC, Schools and Libraries Program, Starting Services, http://www.usac.org_res/documents/sl/pdf/samples/486NL_APP.pdf (last visited June 18, 2014).

[583] *See* USAC, Schools and Libraries Program, June 2002 Announcements, Invoicing Deadlines Extended, http://www.sl.universalservice.org/whatsnew/2002/062002.asp (last visited June 18, 2014).

[584] *See, e.g.*, Amy Biehl NPRM Comments at 2; CenturyLink NPRM Comments at 26-27; FFL NPRM Comments at 59-60; Iowa DOE NPRM Comments at 15.

[585] *See, e.g.*, ALA NPRM Comments at 30; CenturyLink NPRM Comments at 26; FFL NPRM Comments at 59-60; Iowa DOE NPRM Comments at 15.

[586] *See* 47 C.F.R. § 54.514 as amended herein.

[587] *See* USAC Invoice Extension Procedures. *See, e.g.*, ALA NPRM Comments at 30; Amy Biehl NPRM Comments at 2; CenturyLink NPRM Comments at 27-28; FFL NPRM Comments at 59-60; Iowa DOE NPRM Comments at 15; USTA NPRM Comments at 13.

241. In light of our codification of the invoice deadline, we direct USAC, working with OMD, to determine the appropriate de-obligation date for funds against which an invoice has not been received for a particular funding year, taking into account the existence of pending appeals, holds, investigations, and other matters. Our goal is to have USAC establish, working with OMD, a date on which the bulk of undisbursed funds from a given funding year can be de-obligated. By de-obligating those funding commitments, USAC will have greater certainty with respect to the amount of funds from past funding years that can be carried forward for future requests.

242. With respect to appeals or requests to USAC or the Commission seeking permission to submit invoices after USAC's invoicing deadline for earlier funding years, we direct USAC and the Bureau to consider whether such requests were made in good faith and within a reasonable time period after the services were provided or whether other extraordinary circumstances exist that support such a request. In the *Canon-McMillan Order*, the Bureau established a precedent of granting relief to petitioners demonstrating good faith in complying with the invoicing deadline despite submitting very late invoices.[588] At the same time the Bureau recognized that invoice filing deadlines are necessary for the efficient administration of the E-rate program and that as schools and libraries continue to participate in the E-rate program, participants should "become more experienced with the invoice requirements of the program."[589] Until now, USAC had allowed unlimited invoice extensions under certain circumstances, and the Bureau, acting on delegated authority, has been generous when deciding invoicing deadline appeals.[590] As reflected in the rules we adopt today, we find that while USAC's procedures were reasonable in the past, firmer limits on invoicing extensions are required at this time. Therefore, with respect to invoicing deadlines for earlier funding years, absent extraordinary circumstances justifying the failure to timely submit invoices, we expect the Bureau and USAC to deny any requests or appeals seeking an invoicing deadline extension of more than 12 months after the last date to invoice.

### D. Creating a Tribal Consultation, Training, and Outreach Program

243. As part of our overall effort to modernize the E-rate program, we take several actions today to raise the profile of the E-rate program and ensure that Tribal schools and libraries are able to participate effectively in the program. Specifically, we commit to enhance the Commission's Tribal consultation, training, and outreach, and we seek to gain a better understanding of the current state of connectivity among Tribal schools and libraries to enable the Commission to take steps that will reduce the digital divide and promote high-speed broadband connectivity to Tribal lands.

244. The Commission recognizes the historic federal trust relationship and responsibilities it has with federally recognized Tribal Nations.[591] Accordingly, we have a longstanding policy of promoting Tribal self-sufficiency and economic development and have developed a record of helping to

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[588] *See Canon-McMillan Order,* 23 FCC Rcd at 15558, para. 6.

[589] *See id.* at 15558-9, paras. 7, 9. The Bureau granted relief to petitioners whose late filings or failures to file were due to personnel changes or inadvertent employee errors. *Id.* at 15558, para. 6.

[590] USAC requires one of the following reasons for an invoice deadline extension: (1) authorized service provider changes; (2) authorized service substitutions; (3) no timely USAC notice (e.g., the service provider's Form 486 notification letter is returned as undeliverable); (4) USAC errors (e.g., in data entry) that ultimately result in a late invoice; (5) documentation requirements that necessitate third-party contact or certification; (6) natural or man-made disasters that prevent timely filing of invoices; (7) "Good Samaritan" BEAR Forms; and (8) circumstances beyond the service provider's control. *See* USAC, Schools and Libraries Program, Invoice Extensions, http://www.usac.org/sl/applicants/step07/invoice-extensions.aspx (last visited June 18, 2014).

[591] Pursuant to the U.S. Constitution, treaties, statutes, executive orders, and judicial decisions, the U.S. federal government maintains a trust relationship with federally recognized Tribes that requires the federal government to adhere to certain fiduciary standards in its dealings with Tribes, including conducting consultation with Tribes on issues that affect Tribal Nations. *See, e.g.*, William J. Clinton, President, The White House, Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (Nov. 6, 2000).

ensure that Tribal Nations and those living on Tribal lands obtain access to communications services.[592] It is well documented that communities on Tribal lands have historically had less access to both basic and advanced forms of telecommunications services than any other segment of the U.S. population.[593] We recognize that a digital divide persists and extends not only to residents of Tribal lands, but also to Tribal anchor institutions such as schools and libraries located on Tribal lands.[594] Given the challenges many Tribal Nations face in lacking access to even basic services,[595] we recognize the important role of universal service support and the E-rate program in helping provide telecommunications services to and on remote and underserved Tribal lands. We thus take these actions today to gain a better understanding of the current state of connectivity among Tribal schools and libraries and to empower Tribal Nations to meet the high-speed broadband needs of their schools and libraries.

245. *Consultation*. We find that more extensive government-to-government consultation with Tribal Nations is necessary to understand both the need for E-rate support on Tribal lands and how to successfully connect Tribal schools and libraries with modern high-speed communications.[596] One benefit of consultation will be the opportunity to collect better data on the connectivity needs of Tribal schools and libraries. While some data was provided in response to the *E-rate Modernization NPRM*,[597] we need to know much more about connectivity and the use of E-rate support on Tribal lands. In particular, we recognize the need for data on how E-rate has impacted connectivity on Tribal lands to date, which Tribal schools and libraries receive E-rate and for what uses, what services are available to

[592] *Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes*, Policy Statement, 16 FCC Rcd 4078, 4080–81 (2000) (*Tribal Policy Statement*) (establishing nine guiding principles of consultation with Tribes when developing policy and rulemakings); *see also 2000 Tribal Lifeline Order,* 15 FCC Rcd 12208 (2000). *See generally Improving Communications for Native Nations*, CG Docket No. 11-41, Notice of Inquiry, 26 FCC Rcd 2672 (2011) (*Native Nations NOI*) (reviewing Commission actions regarding Native Nations); *Schools and Libraries Sixth Report and Order,* 25 FCC Rcd at 18778, para. 31 (2010); *E-rate Modernization NPRM*, 28 FCC Rcd 11304.

[593] *See Native Nations NOI*, 26 FCC Rcd at 2673-74, 2681-82 (2011); *Extending Wireless Telecommunications Services to Tribal Lands*, WT Docket No. 99-266, Report and Order and Further Notice of Proposed Rule Making, 15 FCC Rcd 11794, 11798 (2000) ("By virtually any measure, communities on Tribal lands have historically had less access to telecommunications services than any other segment of the population."); *see also Connecting America: The National Broadband Plan*, prepared by the staff of the Federal Communications Commission, March 2010 (*National Broadband Plan*) at 152, Box 8-4; *USF/ICC Transformation Order*, 26 FCC Rcd at 17868, para. 636; IMLS NPRM Reply Comments at 3-4; ATALM NPRM Reply Comments at 1; NTTA NPRM Comments at 9; Tribal Commenters PN Comments at 4.

[594] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17868, para. 6366; *Native Nations NOI*, 26 FCC Rcd at 2673, para. 1; *Spectrum over Tribal Lands NPRM*, 26 FCC Rcd at 2624-25, paras. 1-5; National Broadband Plan at 152; *see also* Letter from Douglas K. Kitch, National Tribal Telecommunications Association to Marlene Dortch, FCC, WC Docket No. 13-184, Attach. at 1 (dated Apr. 25, 2014) (NTTA Ex Parte); NNTRC NPRM Comments at 15-17; NIEA NPRM Comments at 3; NCAI NPRM Reply Comments at 5.

[595] *See* NTTA Ex Parte, Attach. at 2; NNTRC NPRM Comments at 2-3; *see also*, *e.g*., MSNBC, Trymaine Lee, *Pine Ridge: A Broken System Failing America's Most Forgotten Children*, (May 28, 2014) (showing the lowest graduation rate and highest dropout rates for American Indian/Alaska Natives, and discussing the challenges of the Tribal education system), http://www.msnbc.com/msnbc/failing-americas-most-forgotten-children (last visited June 17, 2014).

[596] *See* The National Congress of American Indians, General Assembly, 2013 Midyear Session, Resolution REN#-13-064, *Support for the Establishment of a Tribal Broadband Fund and Other Related Purposes* (adopted June 27, 2013); *see also* Chairman Tom Wheeler Remarks to National Congress of American Indians (March 12, 2014); President Barack Obama, The White House Office of the Press Secretary, *Memorandum for The Heads Of Executive Departments and Agencies, Tribal Consultation* (Nov. 5, 2009).

[597] *See, e.g.*, IMLS NPRM Comments at 3-4; ATALM PN Reply Comments at 1-3; Tribal Commenters PN Comments at 2-4.

those schools and libraries, what the price structure is on Tribal lands, what speeds are available and needed on Tribal lands, and where broadband infrastructure still is most needed. We recognize that, without Tribal-specific data, we cannot make the most informed decisions for provision of E-rate support to Tribal Nations.[598]

246. Many Tribal commenters agree and advocate for the need to collect data to ensure that all schools and libraries, including Tribal schools and libraries, have affordable access to high-speed broadband that supports digital learning and educational mandates.[599] NCAI also advocates for coordination with certain inter-Tribal organizations to collect the necessary data.[600] We therefore delegate authority to the Office of Native Affairs and Policy (ONAP), in coordination with the Bureau and OMD, to conduct government-to-government consultation for the purpose of determining how best to gather data on current connectivity levels and help the Commission better determine the need for E-rate support among Tribal schools and libraries. We expect that ONAP's experience in working with Tribal Nations will inform their decisions on how best to conduct this consultation, in coordination with the Bureau and OMD. Our hope is that, by gaining a better understanding of the current state of connectivity among Tribal schools and libraries, we will be in a better position to more effectively meet the high-speed broadband needs of the Native Nations of the United States.

247. *Training*. We find that training tailored to the specific and often unique needs of Tribal schools and libraries is necessary to ensure that Tribal Nations are informed and empowered to participate fully in the E-rate program. In response to several Tribal-specific inquiries in the *E-rate Modernization NPRM*, commenters stressed the need to adopt E-rate program reforms that serve to increase access to high-speed broadband technologies for Tribal lands, specifically Tribal anchor institutions, and encouraged both rule changes and administrative changes.[601] For example, NNTRC requested Tribal-specific training and outreach to ensure that Tribal schools and libraries are aware of the E-rate program and have at least a basic understanding of the E-rate process, services, and eligibility, all to ensure that Tribal Nations have equal access to participation in the E-rate program.[602] The Confederated Tribes of the Colville Reservation stated that Tribal Nations are unable to fully benefit from the E-rate program due to a lack of available training on the program.[603] Further, a 2011 study of Tribal libraries by the Association of Tribal Archives, Libraries, and Museums (ATALM) found that the top three barriers to Tribal library participation in the E-rate program are lack of awareness of the program, uncertainty about eligibility, and a complicated application process.[604] This study found that, while 46 percent of Tribal

[598] *See*, *e.g.*, Jennifer Lee Schultz & Stephanie Carroll Raine, Indian Country Today Media Network, Good Data Leads to Good Sovereignty (June 3, 2014), http://indiancountrytodaymedianetwork.com/2014/06/03/good-data-leads-good-sovereignty (last visited June 17, 2014).

[599] *See, e.g.*, Tribal Commenters PN Comments at 12; NCAI NPRM Reply Comments at 5-6; BIA/BIE NPRM Comments at 3; IMLS NPRM Comments at 3-4; ATALM PN Reply Comments at 1.

[600] *See* NCAI NPRM Reply Comments at 5-6 (recommends coordination with other Tribal organizations, such as ATALM, to supplement data collection efforts).

[601] *See*, *e.g*., NIEA NPRM Comments at 3; NNTRC NPRM Comments at 15-17, NNTRC NPRM Reply Comments at 5-6; NCAI NRPM Reply Comments at 5; Native Hawaiian NPRM Comments at 1; Makah PN Reply Comments at 4-5; BIA/BIE NPRM Comments at 1; Santa Fe Indian School NPRM Comments at 1; *see also* The National Congress of American Indians, General Assembly, 2014 Mid-Year Session, Resolution #ANC-14-049 (adopted June 2014) (NCAI Resolution 14-049).

[602] *See* NNTRC NPRM Comments at 23-24, NNTRC NPRM Reply Comments at 2-4; *see also* NIEA NPRM Comments at 3; Letter from Doug Kitch, Principal, Alexicon, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, Attach. at 1-2 (Filed Apr. 25, 2014); ATALM PN Reply Comments at 1, 3-5.

[603] *See* Confederated Tribes NPRM Reply Comments at 2 (indicating that the application process is extremely complex and, as a result, many Tribes may lack staff with the skills to complete the application process).

[604] *See* Tribal Commenters PN Comments at 4.

libraries are the only source of free public Internet access in their communities, less than 5 percent of Tribal libraries benefit from the E-rate program (as compared to 51 percent of public libraries).[605]

248. USAC currently conducts a series of applicant trainings during the fall of each year, usually located in large cities and focused on issues of general importance to E-rate applicants.[606] As part of the training we adopt today, we envision that ONAP, in coordination with USAC, would help provide E-rate specific training to schools and libraries. We therefore direct USAC to work with ONAP to develop and provide Tribal-specific E-rate training targeted to Tribal schools and libraries. We direct ONAP, in consultation with the Bureau and OMD to advise USAC on the most appropriate timing and mechanism to provide such training, outreach, and materials to Tribal schools and libraries. We also direct ONAP to coordinate with USAC to incorporate and distribute USAC E-rate training materials when mobilizing the Native Learning Lab.[607]

249. *Outreach*. In conjunction with the training described above, we direct USAC, in close coordination with and under the guidance of ONAP, the Bureau, and OMD, to create a formal Tribal liaison at USAC to assist with Tribal-specific outreach, training, and assistance.[608] We expect that USAC's Tribal liaison will coordinate closely with ONAP, the Bureau, and OMD on all Tribal training initiatives. The Tribal liaison's responsibilities will require direct communication with Tribal schools and libraries throughout the E-rate process and will include helping to conduct and coordinate Tribal-specific trainings and training materials, initiating and responding to Tribal "Helping Applicants To Succeed" requests and visits,[609] fielding questions from Tribal schools and libraries regarding the E-rate program and process, and attending national and regional Tribal conferences or meetings where Tribal school and libraries are present.[610] The creation of this position at USAC and the required coordination with ONAP, the Bureau, and OMD, will further our goal of ensuring that Tribal schools and libraries can participate fully and effectively in the E-rate program.

### E. Requiring Filing of Appeals with USAC

250. Consistent with our goal of streamlining the administration of the E-rate program and improving the E-rate appeals process, we revise section 54.719 of our rules to require parties aggrieved by an action taken by a division of USAC, including the Schools and Libraries Division, to first seek review of that decision by USAC before filing an appeal with the Commission.[611] The standards for evaluating the merits of these appeals will be unchanged and affected parties will still have the right to seek

[605] *See* ATALM PN Reply Comments at 2.

[606] *See*, *e.g*., USAC, Schools and Libraries Program, Trainings & Outreach, http://www.usac.org/sl/about/outreach/default.aspx (last visited June 17, 2014).

[607] *See* Tribal Commenters PN Comments at 4.

[608] The U.S. Department of the Interior recently indicated that it plans to appoint an E-rate specialist, funded in coordination with the Broad Foundation, to provide technical assistance to increase the competitiveness of E-rate applications from Bureau of Indian Education-funded schools. *See* The White House, Office of the Press Secretary, http://www.whitehouse.gov/the-press-office/2014/06/13/fact-sheet-strengthening-tribal-communities-through-education-and-econom (June 13, 2014) (last visited June 17, 2014).

[609] *See*, *e.g*., USAC, Schools and Libraries Program, Trainings & Outreach, http://www.usac.org/sl/about/outreach/hats.aspx (last visited June 17, 2014).

[610] *See* Tribal Commenters PN Comments at 5; NNTRC PN Comments at 3-4.

[611] *See* 47 C.F.R. §§ 54.719, 54.720 as amended herein. In amending these rules, we make no distinction between appeals from decisions by the Schools and Libraries Division of USAC and appeals from other Divisions. Thus, the modified procedural requirement will apply to all USAC decisions. This is necessary to avoid administrative complexity and ensure consistency across the USF programs. The modified procedural requirement is also consistent with a recommendation in the recent *Report on FCC Process Reform*. *See Report on FCC Process Reform*, GN Docket No. 14-25, 29 FCC Rcd 1338, 1417, page 77 (Office of the Chairman Feb. 14, 2014).

Commission review of such decisions, as provided in the Commission's rules.[612] This rule change will become effective 30 days after the publication of this Report and Order in the Federal Register.

251. Currently, any party may seek Commission review of an action taken by USAC without first seeking review of that decision by USAC.[613] One result of the current system is a growing number of E-rate appeals with the Commission. While we have made a concerted effort to reduce the backlog of appeals, a backlog remains and we continue to receive numerous appeals on a monthly basis.[614] The appeals backlog is further exacerbated by the fact that aggrieved parties often decline to seek review from USAC and appeal directly to the Commission.[615]

252. We find that requiring parties to first file appeals of USAC decisions with USAC itself before seeking Commission review will improve efficiency in the appeals process. It will reduce the number of appeals coming to the Commission, and allow USAC an initial opportunity to correct any of its own errors, and to receive and review additional information provided by aggrieved parties without having to involve the Commission staff.[616] We remind parties filing an appeal with USAC to follow USAC's appeals guidelines and provide USAC with all relevant information and documentation necessary for USAC to make an informed decision on an appeal.[617] USAC cannot waive our rules; therefore parties seeking only a waiver of our rules are not governed by this requirement, but instead must seek relief directly from the Commission or the Bureau.[618]

### F. Directing USAC to Adopt Additional Measures to Improve the Administration of the E-rate Program

253. We adopt a number of additional measures to ease the burden upon applicants, expedite commitments, and ensure that all applicants receive complete and timely information to help inform their

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[612] *See* 47 C.F.R. §§ 54.719-54.725 (rules governing review of decisions issued by USAC). While the *E-rate Modernization NPRM* sought general comment on ways to improve and streamline the Commission's E-rate appeal process, the procedural rule change adopted herein is not subject to the Administrative Procedures Act notice and comment requirement as it does not alter the rights or interests of parties. *See* 5 U.S.C. § 553(b) (providing exceptions to the general notice and comment requirement for rules of agency organization, procedure or practice); *JEM Broadcasting v. FCC*, 22 F.3d 320, 326 (D.C. Cir. 1994) (quoting *Batterton v. Marshall*, 648 F.2d 694, 707 (D.C. Cir. 1980)) (holding that the "critical feature" of the procedural exception "is that it covers agency actions that do not themselves alter the rights or interests of parties, although it may alter the manner in which the parties present themselves or their viewpoints to the agency').

[613] 47 C.F.R. §§ 54.719, 54.722-54.723.

[614] *See E-rate Modernization NPRM*, 28 FCC Rcd at 11376, para. 266.

[615] *See Report on FCC Process Reform* at 1417, page 77.

[616] *See id.*; SECA Comments on the Reform Report, GN Docket No. 14-25, at 2. *But see* PAIU NPRM Comments at 3 (opposing efforts to modify parties' right to appeal, but suggesting that the Commission delegate authority to USAC to decide appeals for which the Commission has previously opined). Taking this action does not deny anyone of the right to Commission review; it simply changes the process by which appeals are handled, with ultimate review by the Commission still available.

[617] *See* USAC, Schools and Libraries Program, Program Integrity, http://www.usac.org/about/about/program-integrity/ (last visited June 18, 2014). USAC will generally accept new information and documentation on appeal unless the documentation provided on appeal contradicts information contained in the original file and the applicant is unable to resolve the discrepancy; the documentation submitted on appeal is not the original documentation and was created in response to a USAC request during the appeal review; or the applicant was not working with USAC in good faith. *See* USAC, Schools and Libraries Program, Program Integrity, http://www.usac.org/sl/about/program-integrity/appeals-guidelines.aspx (last visited June 18, 2014).

[618] *See* 47 C.F.R. § 1.3 (providing that the Commission may waive its rules on its own motion or on petition if good cause is demonstrated); 47 C.F.R. § 0.91(b) (delegating authority to the Bureau to act on requests for waiver of the Commission's rules). USAC does not have authority to act on waiver requests under the Commission's rules.

decisions regarding E-rate purchases. In particular, we adopt a specific application review and funding commitment target for all category one funding requests as a performance measure in evaluating our progress towards this goal; continue to work on modernizing USAC's E-rate Information Technology (IT) systems; require the publishing of all non-confidential E-rate data in open, electronic formats; and direct USAC to make its communications simpler and clearer so that applicants and service providers will have no difficulty understanding the information and direction that USAC provides them.

### 1. Speeding Review of Applications, Commitment Decisions and Funding Disbursements

254. Many of the rule revisions we adopt today will help speed review of applications, funding commitment decisions and funding disbursements. In this proceeding, we received many comments complaining about the delay in receiving funding commitments.[619] We recognize that those delays have real and substantial impacts on schools and libraries willingness and ability to purchase high-speed broadband services. USAC, working closely with OMD, has already committed to overhaul its application review process for the current funding year 2014 and the initial results are impressive. As noted above, by July 1, 2013, USAC had only committed approximately $181 million in support.[620] By contrast, as of July 1, 2014, USAC has already committed approximately $1.22 billion in support.[621] In 2013, USAC did not reach $1 billion in commitments until October.[622]

255. We applaud the work that USAC and OMD have done in the last few months. Building on that momentum, we adopt a specific application review and funding commitment target for all funding requests as a performance measure in evaluating our progress toward meeting our goal of streamlining the administrative process.[623] We believe that establishing a specific target will help to hold USAC further accountable for more quickly reviewing and issuing category one funding commitments in future funding years. We again remind applicants that failure to timely respond to requested information by USAC could delay the issuance of a commitment, and we therefore encourage applicants to respond expeditiously and completely to all information and documentation requests by USAC.[624]

### 2. Modernizing USAC's E-rate Information Technology Systems

256. We also direct USAC and OMD to continue to work on modernizing USAC's E-rate IT systems. Numerous commenters express frustration with USAC's E-rate IT systems, and recommend that USAC create an online portal with pre-populated information for returning applicants and service providers to reduce administrative burden and errors, and to provide applicants and service providers with easy access to historic information as well as information about the status of their funding and invoice requests.[625]

257. OMD and the Bureau have already begun the process of working with USAC to modernize its E-rate IT systems. We recognize that this is a long-term project. We therefore direct OMD and the Bureau to continue USAC's IT modernization work, with a focus on easing the administrative

[619] *See, e.g.*, EIN NPRM Comments at 2; ENA NPRM Comments at 15-16; SECA NPRM Reply Comments at 3-4; VectorUSA NPRM Comments at 2.

[620] *See* USAC, Schools and Libraries Program, Data Retrieval Tool, http://www.slforms.universalservice.org/DRT/Default.aspx (last visited June 20, 2014).

[621] *Id.*

[622] *Id.*

[623] *See supra* paras. 26-49.

[624] *Id.*

[625] *See, e.g.*, Alliance PN Comments at 5; EdSuperHighway PN Reply Comments at 16; EPS PN Comments at 3; NCTA PN Reply Comments at 9.

burdens on E-rate applicants and service providers, while protecting against waste, fraud and abuse, and on collecting high-quality data that will assist us in measuring our progress towards the goals we adopt today. We note that measuring progress towards our goals, particularly the first two goals, will require USAC to collect a wealth of data from applicants and service providers in a manner that will allow us the flexibility to manipulate and analyze that data in a variety of ways.[626]

### 3. Requiring Open and Accessible E-rate Data

258. We direct USAC to timely publish through electronic means all non-confidential E-rate data in open, standardized, electronic formats, consistent with the principles of the Office of Management and Budget's (OMB's) Open Data Policy.[627] USAC must provide the public with the ability to easily view and download non-confidential E-rate data, for both individual datasets and aggregate data.[628] We further direct USAC to design open and accessible data solutions in a modular format to allow extensibility and agile development, such as providing for the use of application programming interfaces (APIs) where appropriate and releasing the code, as open source code, where feasible.[629] USAC's solutions must be accessible to people with disabilities, as is required for federal agency information technology.[630] The solutions must also, on a going-forward basis, incorporate international standards and best practices for security and privacy controls.[631]

259. The record supports USAC releasing E-rate data in as open a manner as possible so that the schools and libraries that receive support from the program and their associated service providers can track the status of their E-rate applications and requests for reimbursement, and so that they, and the public at large, can benefit from greater program transparency and public accountability.[632] Making non-confidential E-rate data open and accessible will allow members of the public to develop new and innovative methods to analyze E-rate data, which will benefit all stakeholders, including this Commission as we continue to improve the program. Releasing E-rate data in this manner should also enable greater integration with other datasets such as those maintained by the NCES and those maintained by the IMLS. This integration will create opportunities for new and innovative analyses about connectivity to and within our nation's schools and libraries.[633]

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[626] *See supra* section III.A-B.

[627] *See* Office of Mgmt. & Budget, Exec. Office of the President, M-13-13, Open Data Policy – Managing Information as an Asset (May 9, 2013), http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf (last visited June 18, 2014).

[628] This includes non-confidential supporting documentation submitted to USAC.

[629] The data solution will also include the ability to allow third-party systems to directly enter application data, as appropriate.

[630] Section 508 of the Rehabilitation Act of 1973 requires Federal agencies to make their electronic and information technology (EIT) accessible to people with disabilities—to provide "comparable access" to data and information for people with disabilities to those without disabilities. *See* Section508.gov, Opening Doors to IT, https://www.section508.gov/beaccessible (last visited June 18, 2014).

[631] *See, e.g.*, National Institute for Standards and Testing, Security and Privacy Controls for Federal Information Systems and Organizations (Apr. 2013), http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r4.pdf. (last visited June 18, 2014).

[632] *See, e.g.*, New America NPRM Reply Comments at 19-20; EdSuperHighway NPRM Reply Comments; EdCo NPRM Comments at 15-16; ALA NPRM Reply Comments at 12; Connected Nation NPRM Comments at 19-31; SIIA NPRM Comments at 9. *See also supra* paras. 158-167 (discussing increased pricing transparency).

[633] *See* New America NPRM Reply Comments at 19-20.

#### 4. Adopting Plain Language Review

260. We are concerned that many of USAC's standard communications are excessively lengthy and difficult to understand. Because the E-rate program has a wide range of large and small stakeholders, USAC should be particularly careful to communicate in a simple, direct, and user-friendly manner. Plain language is an essential tool for communicating information effectively to the public about decisions and benefits.[634] We therefore direct USAC to work with OMD to implement a full review and revision, as appropriate, of USAC's most commonly used correspondence using plain language, before the beginning of funding year 2016. We find that this review and the improvement to USAC's communications that result will reduce applicant confusion and ensure parties have the information necessary to comply with or appeal USAC's decisions.[635] These requirements will be effective beginning in funding year 2015.

### G. Protecting Against Waste Fraud and Abuse

261. While we seek to modernize the E-rate program and ease the burdens upon applicants and service providers, we are extremely mindful of our commitment to ensuring the program's integrity by protecting against waste, fraud and abuse.[636] We believe that proper documentation is crucial for demonstrating applicant and vendor compliance with E-rate rules, and for uncovering waste, fraud and abuse in the program, whether through compliance audits or investigations. Therefore, we revise our document retention requirements and compliance procedures and clarify that applicants must permit inspectors on their premises as described below.

#### 1. Extending the E-rate Document Retention Requirements

262. We revise section 54.516(a) of our rules to extend the document retention period from five to 10 years after the latter of the last day of the applicable funding year, or the service delivery deadline for the funding request.[637] As the Commission explained in the *E-rate Modernization NPRM*, the current five-year document retention requirement is not adequate for purposes of litigation under the False Claims Act (FCA), which can involve conduct that occurred substantially more than five years prior to the filing of a complaint.[638] We recognize commenters' concerns that extending the mandatory document retention period to 10 years may create additional administrative burdens and incur document storage costs.[639] However, we agree with the San Jacinto School District that electronic storage of

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[634] Indeed, the Commission is required to use plain writing that is "clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience" in all documents. *See* Plain Writing Act of 2010, Pub. L. No. 111-274 (2010).

[635] For example, the Commission occasionally receives appeals from parties that misunderstood language in USAC correspondence, and as a result, failed to file an appeal within the required timeframe.

[636] *See supra* section VI.G.

[637] *See* 47 C.F.R. § 54.516(a) as amended herein.

[638] 31 U.S.C. §§ 3729–33. The FCA has a six year statute of limitations, but a cause of action may be available for up to 10 years. 31 U.S.C. § 3731(b). While a three year tolling period begins when facts material to the action are known or reasonably should have been known by the responsible government official, some cases hold that the tolling period does not begin until the government pays the false claim. *See, e.g.*, *United States v. Inc. Vill. of Island Park*, 888 F. Supp. 419 (E.D.N.Y. 1995). The three year tolling period does not apply to qui tam complaints. *See, e.g.*, *Hyatt v. Northrop Corp.*, 883 F. Supp. 484 (C.D. Cal. 1995) *aff'd sub nom. U.S. ex rel. Hyatt v. Northrop Corp.*, 91 F.3d 1211 (9th Cir. 1996). Under the FCA, entities receiving E-rate funds under fraudulent pretenses may be held liable for a civil penalty of between $5,000 and $10,000, plus treble damages. 31 U.S.C. § 3729(a)(1).

[639] *See, e.g.*, CenturyLink NPRM Reply Comments at 24-25; COMPTEL NPRM Reply Comments at 19-20; NYCDOE NPRM Comments at 8.

documents can dramatically reduce these costs.[640] We therefore strongly encourage schools, libraries, consortia, and service providers to take advantage of digital storage mechanisms. As the Commission did in both the *USF/ICC Transformation Order and FNPRM* and *Lifeline Reform Order*, we conclude that the benefits to the integrity of the program outweigh the burdens of extending our document retention rules to 10 years.[641] Our action thus ensures greater consistency across the various universal service programs.[642]

263. We also modify section 54.516 of our rules to refer to "schools, libraries and consortia" rather than just "schools and libraries," thereby providing clarity that all applicants (as well as all service providers) are required to comply with our document retention and other auditing rules.[643]

### 2. Allowing Access for Inspections

264. To support E-rate compliance audits and enforcement investigations, we also revise section 54.516 to clarify that E-rate applicants and service providers must permit auditors, investigators, attorneys or any other person appointed by a state education department, USAC, the Commission or any local, state or federal agency with jurisdiction over the entity to enter their premises to conduct E-rate compliance inspections.[644] Allowing auditors and investigative personnel to inspect an applicant's premises is necessary to ensure that the applicant is in compliance with E-rate rules. The list of entities entitled to appoint representatives to enter the premises of an applicant or service provider parallels the list of entities entitled to seek production of records from applicants and service providers.[645]

## VII. DELEGATION TO REVISE RULES

265. Given the complexities associated with modernizing the E-rate program, modifying our rules, and the other programmatic changes we adopt in this Report and Order, we delegate authority to the Bureau to make any further rule revisions as necessary to ensure the changes to the program adopted in this Report and Order are reflected in our rules. This includes correcting any conflicts between new and/or revised rules and existing rules as well as addressing an omissions or oversights. If any such rule changes are warranted the Bureau shall be responsible for such change. We note that any entity that disagrees with a rule change made on delegated authority will have the opportunity to file an Application for Review by the full Commission.[646]

## VIII. FURTHER NOTICE OF PROPOSED RULEMAKING

266. In this FNPRM we seek further comment on meeting the future funding needs of the E-rate program in light of the goals we adopt for the program today. We also seek comment on several

[640] *See* San Jacinto NPRM Comments at 3 (supporting extending document retention requirements to ten years to reduce fraud and waste and advocating that applicants utilize electronic archiving).

[641] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17864, paras. 619-21 (extending the document retention requirement for the high-cost program to 10 years); *Lifeline Reform Order,* 27 FCC Rcd at 6857, paras. 505-06 (revising the document retention requirement for the Lifeline program to 10 years).

[642] Even outside the FCA context, the longer document retention period helps the Commission guard against waste, fraud, and abuse in the universal service program by ensuring that evidenced will be preserved. *See, e.g.*, *United States v. Wurts*, 303 U.S. 414, 416, 58 S.Ct. 637, 638 (1938) ("The Government's right to recover funds, from a person who received them by mistake and without right, is not barred unless Congress has 'clearly manifested its intention' to raise a statutory barrier [to recovery].") (citations omitted). Congress has imposed no such statutory barrier to recovery but, to the contrary, in the Debt Collection Improvement Act (DCIA), 31 U.S.C. § 3701 *et seq.*, has generally directed agencies to "try to collect a claim of the [U.S.] Government for money or property arising out of the activities of, or referred to, the agency." 31 U.S.C. § 3711(a)(1)

[643] *See* 47 C.F.R. § 54.516(a) as amended herein.

[644] *See* 47 C.F.R. § 54.516(d) as amended herein.

[645] *See* 47 C.F.R. § 54.516(b).

[646] *See* 47 C.F.R. § 155(c)(1).

discrete issues that may further simplify the administration of the E-rate program by continuing to reduce the burden on applicants of applying for and receiving E-rate support, as well as promoting cost-effective purchasing through multi-year contracts and consortium purchasing. Specifically, we seek comment on ensuring that multi-year contracts are efficient. We also seek comment on proposals to ensure the efficient use of NSLP data. In particular, we seek to require participating NSLP schools to use their NSLP eligibility for purposes of calculating their school's discount rate calculation, rather than continue to permit more costly and administratively burdensome income surveys. We also seek comment on proposals that will encourage consortium participation by easing the concerns of consortia participants by calculating the consortia's discount rate using a weighted average. We further seek comment on whether there are any additional programmatic or rule changes that will encourage applicants to join consortia either through additional incentives, or reduced application burdens. Finally, we seek additional comment on how best to calculate the amount of funding eligible libraries need in order to purchase Wi-Fi networks and other internal connections.

267. Furthermore, as we consider next steps to further modernize the E-rate program, we invite comment on additional improvements to the E-rate program. In particular, we seek comment on additional steps we can take to further the goals we adopt in the accompanying Report and Order.[647] To encourage the deployment of whole networks, are there additional changes to the E-rate program that we should adopt to meet the connectivity needs of schools and libraries? Are there other ways we can foster cost-effective purchasing throughout the program? Are there more changes that we can make to further improve the application process or to otherwise improve the administration of the program? Are there other data that we can and should collect in furtherance of our goals for the E-rate program? We acknowledge that modernizing a program of this size and scope cannot be accomplished at once and so we continue to seek public input and additional ideas to bring 21st Century broadband to libraries and schools throughout the country.

### A. Meeting Future Funding Needs

268. In light of the goals we have adopted for the E-rate program and the changes that we have made to the program, we seek additional comment on the future funding levels needed for the E-rate program to meet those goals. In the attached Report and Order, we have taken a number of significant steps that lay the foundation for this evaluation and that will help structure our analysis. First, we have set specific goals and connectivity targets for the program, which we can now use to size future funding needs.[648] Second, we have taken major steps to refocus E-rate funding on broadband, in order to maximize the funding available to meet our connectivity goals.[649] Third, we have taken new strides to increase the efficiency and impact of E-rate funding, which should help drive down per-unit pricing for E-rate supported services over time.[650] Fourth, we have set a specific target of providing $1 billion annually in E-rate support for category two services, in order to provide discounts to all eligible schools and libraries seeking to make LAN and WLAN deployments.[651]

269. These steps now put us in a strong position to consider the longer-term program needs and how they compare to currently available funding. Numerous commenters have called on the Commission to raise the E-rate funding cap, which was set in 1997, and only began to be adjusted for

[647] The Commission adopts three goals in this Report and Order to (1) ensure affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries; (2) maximize the cost-effectiveness of spending for E-rate supported purchases; and (3) make the E-rate application process and other E-rate processes fast, simple and efficient. *See infra* section III.

[648] *See supra* section III.

[649] *See supra* section IV.B.

[650] *See supra* section V.

[651] *See supra* section IV.B.4.

inflation in 2011.[652] Others have, more specifically, called on the Commission to focus on providing increased funding for connectivity to eligible schools and libraries, particularly those that have not been able to afford access to high-speed connections, and argue that doing so will require additional support.[653] Other commenters have argued that the funding cap should not be raised.[654] In light of the steps described above, we now seek specific comment on how much funding is needed to meet the E-rate programs goals, keeping in mind our responsibility to minimize the overall Universal Service Fund contribution burden on businesses and consumers. In particular, we seek data and analysis in the following four areas:

- *First*, we invite data regarding the gap between schools' and libraries' current connectivity and the specific connectivity targets we adopt here. In particular, we request this data with respect to WAN connections and Internet connections, using those terms as defined in the attached Report and Order. Several states and providers have submitted such data already. We invite further submissions, as well as analyses of what overall conclusions can be drawn from the existing data. How is the accelerated deployment of internal connections that the attached Report and Order promotes likely to affect the pace at which high-speed connectivity needs *to* school and library premises grow?

- *Second*, we seek specific information on how much funding is needed to bridge those gaps in light of likely pricing for broadband services—both WAN and Internet—taking into account the significant new efficiency measures we adopt here, as well as general industry trends in broadband pricing over time.

- *Third*, we seek further comment on the per-student and per-square foot budgets we have adopted for internal connections funding for funding years 2015 and 2016, whether these budgets should be continued in future funding years, and the closely related question of the $1 billion funding target we adopt for category two services. Will these budgets be sufficient to meet schools and libraries needs for Wi-Fi and other internal connections? Are they too generous? Are there other approaches we can take to ensuring sufficient funding for category two services?

- *Finally*, we seek comment on the sufficiency of the significant funding freed up by the reforms adopted herein to meet these needs. In particular, we seek comment on the extent to which focusing the program on broadband frees sufficient funding to meet long term connectivity needs.

270. We also seek comment on how the substantial reduction in the real purchasing power of the E-rate budget since the program's creation should affect our analysis. As several commenters have

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[652] *See, e.g.*, AASA NPRM Comments at 2 (raise the cap to $5 billion annually); ALA NPRM Comments at 23 (consider ways to permanently increase E-rate funding); EdLiNC NPRM Comments at 16 (increase and periodically review the cap to ensure it is adequate); FFL NPRM Comments at 5 (for the E-rate program to thrive, the cap must at least double); NEA NPRM Comments at 5 (double the cap); NHMC NPRM Comments at 4-5 (must raise the cap to meet the Commission's goals); SECA NPRM Comments at 10 (additional needed funding must be permanent and sustainable); Council PN Comments at 2,4 (increase in the cap is needed to meet the needs of all students); New America PN Reply Comments at 7-8 (additional funding will be needed to meet future needs); 21st Century Skills PN Comments (now is the time for increased investment in broadband access).

[653] *See, e.g.*, CoSN PN Comments at 9-10 (additional funding is needed to address the high-capacity educational broadband gap); KDLA Comments at 3-4 (increased funding is needed to meet connectivity targets and fund internal connections); Merit Comments at 5, 9 (short term increase in the cap is necessary to deploy high-capacity connectivity to schools that currently lack infrastructure).

[654] *See, e.g.*, ACA NPRM Comments at 4; NCTA NPRM Comments at 11; Verizon NRPM Comments at 8.

noted, the E-rate cap was not adjusted for inflation between 1998 and 2010.[655] By most general measures of inflation, this resulted in an approximately $800-900 million reduction in the real purchasing power of E-rate funding.[656] We seek additional comment on this issue.

### B. Ensuring That Multi-Year Contracts Are Efficient

271. As part of our continuing efforts to promote cost-effective purchasing, we propose to limit E-rate support to eligible services purchased under contracts of no more than five years, including voluntary extensions. We propose to exempt from this requirement contracts that require large capital investments to install new facilities expected to have a useful life of 20 years or more. Currently, our rules do not specify a maximum length for contracts for E-rate supported services, but as the Commission explained in the *E-rate Modernization NPRM* we seek to balance the advantages that longer term contracts give applicants against the opportunity that shorter term contracts give applicants to take advantage of rapidly falling prices in a dynamic marketplace.[657]

272. In the *E-rate Modernization NPRM*, the Commission sought comment on whether it should limit the maximum term (including voluntary extensions) of multi-year contracts that applicants may enter into for E-rate-supported services to three years.[658] We agree with those commenters who argue that a three-year maximum contract length does not adequately balance the needs of applicants against the benefits of regular contract negotiations. Some commenters suggested that five years was the right length for E-rate supported contracts.[659] However, the record is not particularly robust on how a five-year maximum contract length would affect schools' and libraries' ability to purchase from state master contracts, which often exceed five years, or to enter into contracts that seek to spread the cost of infrastructure builds over many years. Therefore, we invite commenters to revisit the issue of maximum contract length, and we seek comment on the benefits and drawbacks of our new proposal.

273. Commenters generally agree that the markets for E-rate supported services, both broadband services and internal connections, are dynamic,[660] and prices, particularly of broadband services on a per-megabit-basis, have consistently been declining over time.[661] As a result, shorter-term

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[655] *See, e.g.*, NEA PN Comments at 12 (noting, "In 2010, only after years of advocacy on behalf of beneficiaries did the cap receive an adjustment for inflation, bringing the current cap for FY2014 to $2.43 billion"); Philadelphia NPRM Comments at 1 (after the lack of adjustment for inflation since the program's inception, the adjustment made in 2010 was not adequate enough); ULC PN Reply Comments at 7 (the program has not adequately been keeping up with inflation since its inception).

[656] *See, e.g.*, SECA NPRM Comments at 7, n.4 (charting past increases in the cap if inflation adjustments had been made annually).

[657] *E-rate Modernization NPRM*, 28 FCC Rcd at 11367, para. 240.

[658] *Id.* at 11368, para. 243.

[659] *See, e.g.*, EdCo NPRM Reply Comments at 11 ("The record clearly supports E-Rate funding for contracts up to five years in length."); eDimension NRPM Comments at 1-2; KDLA NPRM Comments at 5 (recommending a five-year limit without extensions); Philadelphia SD NRPM Comments at 13; SECA NPRM Reply Comments at 6; SmartEdgeNet NPRM Reply Comments at 18-19; Comcast NPRM Comments at 40.

[660] *E-rate Modernization NPRM*, 28 FCC Rcd at 11367, para. 240. *See also* Richmond County NPRM Comments at 5; Riverside USD NPRM Comments at 16 (noting potential disadvantage of longer-term contracts if terms are not subject to negotiation to reflect lower cost from new technology); Gary Rawson Ex Parte (filed Feb. 21, 2014)(noting that Mississippi revisits its contract with AT&T every two years and negotiates lower rates and more advanced services based on research into available pricing and services offered by in-state competitors as well as providers in other states).

[661] *See, e.g.*, Gary Rawson Ex Parte (dated Feb. 21, 2014) (noting that Mississippi revisits its contract with AT&T every two years and negotiates lower rates and more advanced services based on research into available pricing and services offered by in-state competitors as well as providers in other states).

contracts allow applicants to take advantage of falling market prices, and protect applicants from being locked into prices substantially higher than the market rate.[662] On the other hand, we are mindful of the importance of multi-year agreements to schools and libraries and the benefits these agreements provide, including cost efficiencies.[663] Commenters also report that having the flexibility to enter into multi-year agreements can allow applicants to negotiate more favorable terms over the life of the contract.[664] Furthermore, multi-year agreements can increase administrative efficiencies for applicants and vendors because they do not have to rebid contracts annually.[665] Moreover, as we discuss in section VI.A.1, we are revising our rules to simplify the process for seeking E-rate support for multi-year contracts of five years or less. On the issue of whether five years strikes the right balance, we seek comment on whether there are particular E-rate supported services for which we should require shorter maximum contract lengths because the price of such services is so dynamic or for other reasons. We seek comment on what such services might be, and why we should require all contracts for such services to be less than five years, and how much less. Are there services for which we should allow longer maximum contract lengths? What might such services be and why should we allow longer maximum contract lengths for such services? How long should the maximum contract length be for such services?

274. *State and other master contracts.* We believe that limiting most contracts for E-rate supported services to five years generally strikes the right balance between the interests described above. However, we seek comment on how this approach will affect schools' and libraries' current procurement processes, and in particular how it will affect their ability to purchase from state or other master contracts, service agreements, or joint purchasing agreements. Some commenters have expressed concern that the maximum length of a contract for E-rate supported services should be determined by – or at least should not conflict with – state and local procurement decisions and laws.[666] As a practical matter, no commenter has offered an example of a state law that would require service contracts to extend beyond

[662] *See, e.g., id.*; Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 at 4 (filed Sept. 19, 2013) (Massachusetts Districts Ex Parte) (noting that Massachusetts requires all school districts to have a five-year technology plan, but such plans are only a formality because five years is too long a window for planning).

[663] *See, e.g.*, Comcast NPRM Comments at 40; Verizon NPRM Comments at 21; EIN NPRM Comments at 2 ("Longer term contracts may bring more efficient use of e-rate dollars and lower costs to the applicants"); The Quilt NPRM Comments at 10 ("We believe multi-year contracts offer significant cost savings and should be encouraged because of administrative efficiencies as well"); Merit NPRM Comments at 10 (supports even a 10-year maximum for fiber IRU); Riverside USD NPRM Comments at 16.

[664] *See, e.g.*, Merit NPRM Comments at 10 (arguing maximum contract term should not be limited to three years because many applicants choose five-year contract terms to achieve greater savings per year, and the maximum term should depend on the type of service being provided, as in the case of a 10-year fiber IRU); EdCo NPRM Reply Comments at 11 ("The record clearly supports E-Rate funding for contracts up to five years in length, which is consistent with other procurement models in the education industry."); MOREnet NPRM Comments at 10 ("MOREnet broadband contracts are generally five years"); ENA NPRM Comments at 75 ("Contracts for new build typically require at least five years to effectively amortize the cost to build the connectivity"); SDDOE NPRM Comments at 23; ENA NPRM Comments at 75.

[665] *See, e.g.*, The Quilt NPRM Comments at 10 ("We believe multi-year contracts offer significant cost savings and should be encouraged because of administrative efficiencies as well"); Council NPRM Comments at 13-14; SDDOE NPRM Comments at 23.

[666] *See, e.g.*, SCG NPRM Reply Comments at 12 ("The length of any E-rate contract shall follow state and/or local laws. A contract time limit should not be imposed by FCC rules because time limits would circumvent state procurement rules."); SDDOE NPRM Comments at 23 (noting that a state has substantial contract and competitive procurement expertise and well as substantial technology expertise, and the FCC should not second guess the state's decision to enter into a contract of any particular length of time); Verizon NPRM Comments at 21; Arkansas NPRM Comments at 25-26.

five years and the record demonstrates that many of these state and local procurement laws do not allow contracts beyond five years.[667] If a state has a requirement that would conflict with a maximum duration that we set, we seek comment on whether we should grant applicants in that state a waiver of this rule or select a longer duration, consistent with the laws and rules in all states. Are there other reasons that we should allow E-rate applicants to purchase E-rate supported services using state and other master contracts, service agreements or joint purchasing agreements with terms that are longer than five years?

275. *Alternatives to maximum duration.* We also seek comment on other ways to achieve our goal of ensuring that schools and libraries can take advantage of falling prices for E-rate supported services while minimizing administrative burdens. For example, would it be sufficient to require that contracts for E-rate supported services include a provision requiring the applicant to renegotiate the contract or otherwise seek lower prices at least once every five years? How could we ensure such renegotiation results in the best possible pricing for E-rate supported services? Alternatively, might we permit longer-term contracts for E-rate services if they include provisions that would help ensure that applicants enjoyed the benefits of declining prices of bandwidth and their likely increasing demand for it? Thus, should we allow a contract that sets a fixed price for an increasing level of bandwidths over the term of the contract, based on applicants' anticipated needs and the rapid declining price of bandwidth?

276. *New builds.* We also seek comment on our proposal to allow longer contracts for services that require infrastructure build-outs. We recognize that long-term contracts may be the most efficient way to contract for the installation of a new dedicated fiber connection, or other such facility, which is likely to have a useful life of 20 years or more. However, in response to the *E-rate Modernization NPRM*, we received no comments arguing that providers need the flexibility to offer such long-term contracts, or that applicants need the option of long-term contracts to purchase affordable services. We therefore seek focused comment on how to ensure the most effective competition for the provision of new fiber builds, or other such infrastructure projects.

277. The E-rate program currently provides support for special construction charges separate from the charges for recurring services. Does this obviate the need for longer-term contracts? We also seek comment on whether the winner of an initial short term contract would likely face any serious competition over subsequent terms, once it had recovered its capital investment. We seek comment on whether a 20-year contract might be most likely to allow a service provider to amortize its installation costs once over the entire contract, while some indexing or similar arrangement could provide E-rate applicants with the increasing bandwidths they would likely desire over the period at no additional cost above the costs of upgrading the electronics to provide the higher bandwidth.

278. Assuming that we adopt some restriction on the duration of contracts for E-rate services discussed above, we recognize some existing long-term contracts for E-rate supported services are likely to violate such new restrictions. While we would require all new contracts executed after the effective date of the proposed rule to be in compliance, we seek comment on whether we should grandfather existing E-rate contracts, and if so, for how long a period of time. We also seek comment on whether, if we did not grandfather such contracts, we would have legal authority to require existing long-term contracts to comply with a limitation. Further, we seek comment on whether, if we do have such authority, we should set a date by which parties would be able to amend existing contracts to comply with such a limitation, and if so, how much time we should allow for such amendments.

### C. Standardizing the Collection of NSLP Data

279. As part of our continuing efforts to streamline the administration of the E-rate program, we propose to standardize USAC's collection of data about participation in the USDA's NSLP for purposes of calculating schools' and libraries' E-rate discount rates. Currently schools use NSLP data to determine their level of economic disadvantage for the E-rate program by measuring the percentage of

[667] *See, e.g.*, Knox County NPRM Comments at 21.

student enrollment that is eligible for free or reduced price lunch under NSLP or a federally approved alternative mechanism.[668] We propose to standardize USAC's collection of NSLP data by requiring schools to use the NSLP information reported by state agencies to USDA's Food and Nutrition Service (FNS) and by requiring schools that participate in NSLP to use NSLP data for purposes of determining their discount rate. Both measures will simplify the application process for schools and libraries, reduce the administrative burden on USAC, and reduce the risk of applicant error in calculation of NSLP participation that can have negative consequences for applicant funding requests.

280. *State Reported NSLP Data*. We propose to require schools and libraries that use NSLP data to calculate their E-rate discount rates using the school district's NSLP information that is reported by their state agency to FNS. Currently, only some schools and libraries use state-reported NSLP data when calculating their discount rates. By November 15th of each year, after requisite income verifications are complete, states report their consolidated NSLP eligibility data to FNA using Form FNS 742 – School Food Authority (SFA) Verification Collection Report.[669]

281. We propose to require schools and libraries to use state reported NSLP data on the basis that it should reflect the most accurate and verifiable accounting of a district's NSLP participation rate.[670] Requiring the use of state reported data should reduce the frequency with which USAC issues commitment adjustment decision letters after it has identified an error in a school or school district's discount eligibility reporting. We seek comment on the benefits and drawbacks to this proposal. Do all states and territories report NSLP data to FNS by November 15th every year? In the accompanying Report and Order we have required school districts to apply for E-rate support using the district-wide average of their student population's NSLP eligibility.[671] Is state reported NSLP data available on a district-wide basis and is it calculated in a way that is consistent with our new discount rate calculation rules? When does state reported NSLP data become available to schools? Can libraries access information about state-reported NSLP data? Would the requirement to use state-reported NSLP data impact Tribal schools and libraries, and if so, how so? Is there alternative reporting data that would better reflect the level of economic disadvantage for Tribal schools and libraries? Is there other better reporting data that we should use for any other set of schools?

282. If we use state reported data for determining E-rate discount rates, that data would always be a year behind. Should there be a process through which school districts can use more current information that is subject to the same level of review as the state reported NSLP data? What should that process be? We also seek comment on how the use of state reported NSLP data impacts schools' and libraries' E-rate application process. Would the use of state reported NSLP data provide an advantage for some school districts over others? Does the requirement to use this data unfairly favor certain types of applicants over others? Are there additional reasons why state reported data would disadvantage schools or libraries or complicate the application process? Commenters should explain any response and provide specific examples.

283. In the accompanying Report and Order, we adopted USDA's CEP allowing participating schools to use their CEP data and multiplier to determine eligibility for E-rate support.[672] The E-rate program also accepts information from schools and school districts participating in USDA's Provision 1,

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[668] *See* 47 C.F.R. §§ 54.501-54.503, 54.505(b)(3); *Universal Service First Report and Order*, 12 FCC Rcd at 9040-44, paras. 501-07.

[669] *See* Form FNS 742, School Food Authority (SFA) Verifiication Collection Report, OMB 0584-0026 (expiration date Apr. 30, 2016). *See* 7 C.F.R. § 245.6a.

[670] All state agencies must conduct administrative reviews of all school food authorities participating in NSLP at least once during a 3-year review cycle. *See* 7 C.F.R. § 210.18(c).

[671] *See supra* section VI.B.1.

[672] *See supra* section VI.B.3.

2 and 3.[673] How would schools and school districts participating in these alternative NSLP provisions (CEP and Provisions 1, 2 and 3) be affected by a state reported data requirement?

284. *Mandatory use of NSLP data for schools that participate in the NSLP.* We next propose to require schools that participate in the NSLP to use their NSLP eligibility data when calculating their E-rate discount rate. Currently, under the E-rate program, even schools that participate in the NSLP can choose to use a federally approved alternative mechanism, such as a survey, as a proxy for poverty when calculating E-rate discount rates.[674] Requiring schools that participate in NSLP to use NSLP eligibility rates to calculate their discount rates will further simplify the application process for the schools and it will also speed review of applications as income surveys and other alternatives are more time-consuming to review. It will also help ensure the program's integrity by protecting against waste, fraud, and abuse. We seek comment on the benefits and drawbacks to this proposal. We seek comment on whether there are additional considerations for why an NSLP participant may need to use an alternative method for discount calculation.

## D. Encouraging Consortium Participation

285. By aggregating purchasing across many schools and libraries, consortia can drive down the prices of E-rate supported services. In the accompanying *E-rate Modernization Order*, we adopted changes to our rules to encourage consortium purchasing.[675] In the interest of doing more to encourage consortia, we seek further comment on how to break down barriers to schools and libraries joining consortia. Specifically, we propose to change the way consortia discount rates are calculated and also seek comment on additional ways to encourage consortium participation.

### 1. Consortium Discount Rate Calculations

286. Under the current rules, a consortium lead calculates the consortium discount rate by taking a simple average of the discount rates of all the consortium members.[676] The Commission has said that consortium leads are expected to adjust the discount rate received by each member to more closely reflect that member's individual discount rate.[677] Despite that direction from the Commission, commenters suggest that consortium leads sometimes assign the consortium discount rate to all members regardless of members' individual discount rate, which deters high-discount rate applicants from joining consortia because the consortium discount rate is often lower than their own rate.[678] Moreover, even if a

[673] For schools that meet the requirements of USDA's Provisions 1, 2, or 3, annual notification of program availability and certification of children eligible for free meals may be reduced to once every two consecutive school years or less. USAC defers to these reporting requirements. Specifically, a school must have a copy of its site inspection, approval letter from its state to participate in that provision, base year statistics, and the state letter approving an extension (if applicable). *See* USAC, Schools and Libraries Program, Alternative Discount Mechanisms, http://www.usac.org/sl/applicants/step04/alternative-discounts.aspx (last visited June 17, 2014).

[674] *See* 47 C.F.R. § 54.505(b)(1); USAC, Schools and Libraries, Alternative Discount Mechanisms, http://www.usac.org/sl/applicants/step04/alternative-discounts.aspx (last visited June 17, 2014).

[675] *See supra* section V.B.

[676] 47 C.F.R. § 54.505(b)(4). To take the simple average, consortium leads add the discount rates of each member together and divide by the number of members in the consortium.

[677] *See In the Matter of Federal-State Joint Board on Universal Service; Changes to the Board of Directors of the National Exchange Carrier Association, Inc.*, CC Docket No. 97-21 et al., Fourth Order on Reconsideration and Report and Order, 13 FCC Rcd 5318, 5437-38, para. 205 (1997) (the amount of support for a consortium member should be based on the discount rate to which the member is entitled if it is not unreasonably burdensome for a consortium lead to calculate).

[678] *See, e.g.*, METLA NPRM Comments at 26 (districts with high discount rates are reluctant to join consortia with low discount rates because it increases the higher discounted district's cost for services); Florida DMS NPRM Comments at 11 (some consortium members would receive higher discount rates if they applied on their own);

(continued…)

consortium lead tries to adjust the discount rate received by each applicant to more accurately reflect what the discount rates would be outside of the consortium, the mix of applicants and the types of services selected may make it impossible for a consortium lead to give every applicant the discount rate to which it would have been entitled if it had applied for services on its own. Indeed, the current consortium calculation formula permits and encourages consortia to inflate their discount rate by taking on high-discount members with few students because each member has the same impact on the consortium discount rate regardless of its student count. For the same reason, the current calculation discourages consortia from taking on smaller members whose discount rate is lower than the consortium's average without the additional district, school, or library.

287. We therefore propose to require consortia with only schools or school districts to use a weighted average formula that would account for the number of students in each member school or school district as well as the individual discount levels. Under this proposal, a consortium lead would calculate the consortium discount rates by multiplying each member's individual discount rate by its number of students, adding those figures for each member and then dividing by the total number of students in the consortium. After determining the consortium discount rate, the consortium lead could then adjust each member's funding so that it better reflects each member's individual discount rate. We seek comment on whether we should require the consortium lead to adjust each member's funding. By using the weighted average, consortia should be better able to allocate the funding according to each applicant's own discount rate. We seek comment on the benefits and drawbacks of such an approach, and on whether it would encourage more schools and school districts to join consortia. We also seek comment on whether there are any safeguards we need to put in place to ensure that consortia leads equitably allocate funding. Some services, such as fiber backbone access, are shared among consortium members, which makes it difficult for consortium leads to determine the proportion of the service each member uses. Are there additional issues we need to consider for such shared services?

288. For consortia composed of schools and libraries or just libraries, we seek comment on how best to calculate a weighted average discount rate, given that libraries do not have student counts. We propose to count each 50 square feet of library space as one student for the consortium discount rate calculation. For example, a library with 5000 feet of library space would count as 100 students in the discount calculation (5000 divided by 50). If that library had a 50 percent discount rate and formed a consortium with a school district with 500 students and an 80 percent discount rate, the consortium discount rate would be 75 percent. We seek comment on the benefits and drawbacks to this approach. Would a formula based on number of patrons, volumes of books or another square footage benchmark be better substitutes for student count? Are there any other better and/or simpler alternatives?

289. We also seek comment on how common it is for consortium leads to re-adjust the consortium discount rate for each member to more accurately reflect that member's individual discount rate. Additionally, we seek comment on how common it is for consortia to seek to inflate their discount rates by adding high-discount members with few students. If consortium leads neglect to re-adjust each member's discount rate, would the weighted approach we propose be sufficient to encourage high-discount applicants with many students to join consortia?

290. Using a weighted average of the discount rate of all consortium members should reduce the risk that any one member's discount rate is greatly different than if the member did not join the consortium. There will continue to be circumstances, however, under which an applicant's discount rate is still reduced by virtue of joining the consortium. Therefore, in the alternative, we seek comment on whether we should require consortium leads to submit applications for E-rate support that would ensure each consortium member receives the exact discount rate it would be entitled to if it were to apply for services on its own. To do this, the consortium lead would create separate funding requests in an application for each group of consortium members who share the same discount rate. For example, the

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Humboldt County NPRM Comments, at 1-2 (high discount schools that participate in consortia do not receive funding at their true discount level due to averaging at the discount level).

consortium lead would group into one funding request all consortium members with an 80 percent discount rate and all consortium members with a 60 percent discount rate into another funding request. Under the new district-wide discount calculation we introduce in the accompanying Report and Order,[679] there would only be a limited number of discount rate groups in each consortium because most discount rates will be the round numbers in the discount matrix.[680] To the extent a consortium application included shared services, the lead would explicitly cost-allocate those services among the different funding requests. We expect that this approach would encourage consortium participation for high-discount entities by guaranteeing them the same discount rate as a consortium member that they would have as an individual applicant. We seek comment on this alternative. Would ensuring that high-discount applicants receive the same discount rate whether they apply for services as a consortium member or individual applicant encourage consortium participation for high-discount applicants? Would grouping discounts by funding request be too administratively burdensome for consortium leads? We understand that some consortia have only one payer and that this grouped approach would not provide them with any additional benefit. We seek comment on how common it is for a consortium to have one payer. Would the benefit to consortia with multiple payers outweigh the administrative burden on consortia with multiple payers?

291. We seek comment on the advantages and disadvantages of these options and welcome suggestions for other methods for calculating consortium discount rates.

### 2. Additional Ways to Encourage Consortium Participation

292. We seek comment on additional programmatic or rules changes we can adopt to encourage consortium participation.

293. For example, to ensure that applicants receive the most cost-effective services possible, should we require applicants to consider services on all master contracts available to them in the bid evaluation process? What would be the advantages and disadvantages of such a rule? How could we ensure that applicants would be aware of the services available to them on master contracts? Would requiring applicants to consider options from all master contracts available to them in their bid evaluations be unduly burdensome for small applicants? What can we do to accommodate the unique financial constraints that schools and libraries on some Tribal lands deal with and the unique relationships among Tribal Nations. Should we, for example, establish different consortia rules for schools and libraries on Tribal lands or operated by Tribal Nations? What should such rules be?

294. The Education Coalition has proposed a model that would provide an additional 5 percent discount rate for consortia meeting minimum size standards.[681] The Education Coalition's specific proposed requirements for receiving an additional incentive are that the participating entities: (1) serve at least 30 percent of the students in a state, include at least 30 percent of the local education agencies in the state, or be designated as a consortium by the state, (2) document the participation of individual entities, (3) maintain a level of governance, (4) perform large-scale, centralized procurement that results in master contracts, and (5) open participation to all eligible schools and libraries, including public charter schools

[679] *See supra* section VI.B.1.

[680] Districts will no longer average discount rates on a building-by-building basis, which made it common for a district's average discount to be something other than the round numbers and appear in the discount matrix (20 percent, 25 percent, 40 percent, 50 percent, 60 percent and 80 percent). With a district-wide discount formula, most districts' discount rates will be those round numbers because districts will no longer have the option to average the discount rates of schools within a district. In some instances, such as when some schools within a district receive the urban discount rate and others receive the rural discount rate, the district's discount rate may not be a round number from the discount matrix.

[681] *See* EdCo Ex Parte at 3-4.

and private schools.[682] We seek comment on the Educations Coalition's proposal and more generally on the merits of providing an additional 5 percent incentive for consortia.[683]

295. Would applicants be more likely to form consortia if an additional 5 percent discount were available for consortia? Should the discount of consortia be limited to the otherwise-applicable top discount rate, regardless of the additional discount (i.e., top discount of 90 percent for category one purchases and 85 percent for category two purchases)? The Education Coalition contends that high-performing state and large regional consortia have a track record of lowering prices.[684] Should demonstrated effectiveness in lowering prices be a condition of any additional consortium discount? For example, should an additional discount only be available to consortia that show that their pricing is at least 10 percent better than the state average? Would the minimum size thresholds in this proposal ensure that consortia are large enough to receive significant discounts? Would states designate small groups that do not have much bulk buying power as consortia so that they can take advantage of the additional discount? Should we therefore limit or eliminate the separate state designation prong of the Education Coalition proposal? How would the Education Coalition's proposal affect those E-rate participants who, because of their geographic location, receive the best prices from smaller, local service providers? The Education Coalition's proposal would allow libraries to participate in consortia eligible for an additional discount rate, but only if the libraries participate in consortia with schools and school agencies. Are there ways it should be modified to ensure libraries can get the benefits of such consortia? For example, should we require that all such consortia make their prices available to all libraries within the area encompassed by the consortium, and allow libraries to take advantage of these contracts without conducting a separate bidding process? Should there be an alternative approach that allows for consortia made up only of libraries or only of schools? How would this proposal affect schools and libraries on Tribal lands or operated by Tribal Nations? We also seek comment on any administrative challenges that consortia face that were not raised in comments to the *E-rate Modernization NPRM*. What rules can the Commission enact to alleviate those issues?

296. Other commenters have proposed that we permit private-sector entities to join consortia with E-rate participants.[685] Our rules now prevent ineligible private sector entities from joining such consortia unless the pre-discount prices for interstate services are at tariffed rates.[686] We seek comment on the potential advantages and disadvantages of permitting private sector entities to join E-rate consortia.

297. Would a consortium consisting of E-rate participants and private-sector entities provide the economy of scale sufficient to reduce the cost of E-rate eligible services and encourage E-rate participants to join consortia, particularly in rural areas? Is there any data or other information showing the impact on connectivity or pricing that allowing this consortium combination? What safeguards would we have to put in place to ensure that the Fund does not support services used by ineligible entities?

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682 *Id.*

683 *See* Letter from Susan Bonesteel Harriman, Director of Policy and Special Projects, Arkansas Department of Education, to Marlene H. Dortch, WC Docket No. 13-184 (filed July 3, 2014) (a modest discount adjustment would provide the incentives necessary for school districts, state legislators and other leaders to build statewide consortia). *But see* SETDA July 7 Letter to Chairman Wheeler et al at 3-4 (ensure that an additional consortium discount rate does not provide a disincentive for districts to join consortia due to decreased flexibility in applying consortium discount calculations to consortium members).

684 EdCo Ex Parte at 5.

685 *See, e.g.*, Letter from Garland McCoy, President, Technology Education Institute, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184, at 2-4 (filed July 7, 2014) (TEI Ex Parte) (permitting private sector entities to participate in E-rate consortia will provide E-rate recipients with needed technical expertise and provide them access to already-existing fiber); SmartEdgeNet Comments at 7 (allowing private businesses to participate in E-rate consortia would promote network deployment).

686 *See* 47 C.F.R. § 54.500(c).

Would prohibiting private-sector consortium members from using membership in the consortium to evade generally tariffed rates be a sufficient safeguard? In rural areas where abundant fiber is available for private-sector entities but not for schools and libraries,[687] are there additional rule changes that we can implement to allow schools and libraries to gain access to that fiber?

### E. Ensuring Support for Libraries is Sufficient

298. As part of our effort to ensure affordable access to robust connectivity for all libraries, we seek additional focused comment on the funding eligible libraries need in order to deploy robust LANs/WLANs within their buildings and the best method(s) to calculate libraries' internal connections budgets. In the foregoing Report and Order, we set a pre-discount budget of $2.30 per square foot for libraries with a pre-discount funding floor of $9,200 in category two support available for each library over five years for those libraries that apply for E-rate support in funding years 2015 and/or 2016.[688] In so doing, we have recognized that the record of library funding needs for internal connections is not as robust as we would like, and not all parties agree with the square-foot based budgeting approach we have chosen to adopt.[689] We therefore seek additional focused comment on the approach we use to calculate libraries' budgets.

299. In particular, we seek additional comment on whether we should adopt another metric in addition to or instead of square footage to set library budgets. Should we establish more than one method of establishing a library's budget and give libraries the option to choose a method based on their particular community, architecture, and service levels?[690] If we allow libraries the option to choose between different methods, should we libraries be locked in to the selected budget each subsequent funding year or should libraries be able to select a method each funding year?

300. We also seek additional comment on the appropriate funding amount for each library. Some commenters suggest that a $2.30 per square foot pre-discount budget is not enough support to ensure that libraries are able to deploy the necessary networks to meet the needs of their communities.[691] In particular, the Urban Libraries Council argues that libraries should receive E-rate funding of no less than $4.00 per square foot.[692] In light of these comments, we seek additional data on efficient library deployments. We also seek additional data on the LAN/WLAN deployment costs in small libraries, and whether the $9,200 funding floor adopted above is either too high or too low.

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[687] *See* TEI Ex Parte at 3-4 (schools in Loudoun County, Virginia have difficulty obtaining broadband access despite the presence of fiber access for technology companies in the area).

[688] *See supra* paras. 90, 98-99.

[689] *See supra* para. 98.

[690] *See, e.g.*, Pioneer Library System Ex Parte at 2 (dated July 2, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014); Hartford Public Library Ex Parte at 2 (dated July 2, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014); Queens Library Ex Parte at 2 (dated July 2, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014).

[691] *See, e.g.*, Urban Libraries Council Ex Parte at 1 (dated July 7, 2014); Dayton Metro Library Ex Parte at 1 (dated July 7, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014); Columbus Metropolitan Library Ex Parte at 1 (dated July 7, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014).

[692] *See, e.g.*, Hartford Public Library Ex Parte at 1 (dated July 2, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014); Queens Library Ex Parte at 2 (dated July 2, 2014) (attached to Urban Libraries Council Ex Parte, dated July 7, 2014).

## IX. PROCEDURAL MATTERS

### A. Final Regulatory Flexibility Analysis

301. As required by the Regulatory Flexibility Act of 1980 (RFA),[693] the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) relating to this Report and Order. The FRFA is set forth in Appendix F.

### B. Paperwork Reduction Act Analysis

302. This Report and Order contains new 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 revised 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,[694] the Commission previously sought specific comment on how it might further reduce the information collection burden on small business concerns with fewer than 25 employees.

### C. Congressional Review Act

303. The Commission will include a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.[695]

### D. Initial Regulatory Flexibility Act Analysis

304. As required by the Regulatory Flexibility Act of 1980, as amended,[696] the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) for the Further Notice of Proposed Rulemaking, of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this FNPRM. The IRFA is in Appendix G. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice. The Commission will send a copy of the Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[697] In addition, the Notice and IRFA (or summaries thereof) will be published in the Federal Register.[698]

### E. Initial Paperwork Reduction Act Analysis

305. The Further Noticed of Proposed Rulemaking seeks comment on a potential new or revised information collection requirement. If the Commission adopts any new or revised information collection requirement, the Commission will publish a separate notice in the Federal Register inviting the public to comment on the requirement, as required by the Paperwork Reduction Act of 1995, Public Law 104-13 (44 U.S.C. 3501-3520). In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

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[693] *See* 5 U.S.C. § 604. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, Stat. 857 (1996). The SBREFA was enacted as Title II of the Contract with America Advancement Act of 1996.

[694] *See* 44 U.S.C. § 3506(c)(4).

[695] *See* 5 U.S.C. 801(a)(1)(A).

[696] *See* 5 U.S.C. § 603.

[697] *See* 5 U.S.C. § 603(a).

[698] *See id.*

### F. Ex Parte Presentations

306. *Permit-But-Disclose*. The proceeding this FNPRM initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[699] Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

### G. Comment Filing Procedures

307. *Comments and Replies*. We invite comment on the issues and questions set forth in the FNPRM and IRFA contained herein. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on this FNPRM by September 15, 2014 and may file reply comments by September 30, 2014. **All filings related to this FNPRM shall refer to WC Docket No. 13-184**. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://fjallfoss.fcc.gov/ecfs2/.

- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.

  - Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

  - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of <u>before</u> entering the building.

  - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

[699] 47 C.F.R. §§ 1.1200 *et seq.*

- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

*People with Disabilities*. 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 Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

308. In addition, one copy of each paper filing must be sent to each of the following: (1) the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554; website: www.bcpiweb.com; phone: (800) 378-3160; (2) Lisa Hone, Telecommunications Access Policy Division, Wireline Competition Bureau, 445 12th Street, SW, Room 6-A326, Washington, DC 20554; e-mail: Lisa.Hone@fcc.gov; and (3) Charles Tyler, Telecommunications Access Policy Division, Wireline Competition Bureau, 445 12th Street, SW, Room 5-A452, Washington, DC 20554; e-mail: Charles.Tyler@fcc.gov.

309. Filing and comments are also available for public inspection and copying during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street, SW, Room CY-A257, Washington, DC 20554. Copies may also be purchased from the Commission's duplicating contractor, BCPI, 445 12th Street, SW, Room CY-B402, Washington, DC 20554. Customers may contact BCPI through its website: www.bcpi.com, by e-mail at fcc@bcpiweb.com, by telephone at (202) 488-5300 or (800) 378-3160 or by facsimile at (202) 488-5563.

310. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with section 1.49 and all other applicable sections of the Commission's rules. We direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission. We also strongly encourage parties to track the organization set forth in the FNPRM in order to facilitate our internal review process.

311. For additional information on this proceeding, contact Kate Dumouchel at (202) 418-1839 or James Bachtell at (202) 418-2694 in the Telecommunications Access Policy Division, Wireline Competition Bureau.

## X. ORDERING CLAUSES

312. ACCORDINGLY, IT IS ORDERED, that pursuant to the authority contained in sections 1 through 4, 201 through 205, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201-205, 254, 303(r), and 403, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 1302, this Report and Order and Further Notice of Proposed Rulemaking IS ADOPTED effective thirty (30) days after the publication of this Report and Order and Further Notice of Proposed Rulemaking in the Federal Register, except to the extent expressly addressed below.

313. IT IS FURTHER ORDERED, that pursuant to the authority contained in sections 1 through 4, 201 through 205, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201-205, 254, 303(r), and 403, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 1302, Part 54 of the Commission's rules, 47 C.F.R. Part 54, is AMENDED as set forth in Appendix A, and such rule amendments shall be effective (30) days after the publication of this Report and Order and Further Notice of Proposed Rulemaking in the Federal Register, except for sections 54.502(b)(2)-(3) and (5), 54.503(c), 54.504(a), 54.507(d), 54.514(a), 54.516(a)-(c), 54.719, and 54.720(a), which are subject to the PRA and will become effective upon announcement in the Federal Register of OMB approval of the subject information collection requirements; and except for amendments in sections 54.5, 54.500, 54.501(a)(1), 54.502(a), 54.504(d), 54.507(a)-(c) and (e), 54.516(d), and 54.720(b) and (c), which shall become effective on July 1, 2015; and amendments in 54.504(f)(4) and (f)(5) and 54.514(c), which shall become effective on July 1, 2016.

314. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of the Report and Order and Further Notice of Proposed Rulemaking, including the Final Regulatory Flexibility Analysis and Initial Regulatory Flexibility Act Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

## APPENDIX A

### Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 C.F.R. Part 54, Subparts A, F, and I, as follows:

### PART 54—UNIVERSAL SERVICE

### Subpart A—General Information

1. The authority citation for Part 54 continues to read as follows:

Sections 1, 4(i), 5, 201, 205, 214, 219, 220, 254, 303(r), and 403 of the Communications Act of 1934, as amended, and section 706 of the Communications Act of 1996, as amended; 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

2. Amend § 54.5 by revising the definition of "Internet access" to read as follows:

**§ 54.5 Terms and definitions.**

*****

Internet access. "Internet access" includes the following elements:

(1) The transmission of information as common carriage; and

(2) The transmission of information as part of a gateway to an information service, when that transmission does not involve the generation or alteration of the content of information, but may include data transmission, address translation, protocol conversion, billing management, introductory information content, and navigational systems that enable users to access information services, and that do not affect the presentation of such information to users.

*****

### Subpart F—Universal Service Support for Schools and Libraries

3. Amend § 54.500 by re-designating paragraph (a) as paragraph (b), by adding new paragraph (a); by re-designating paragraphs (b) and (c) as paragraphs (d) and (e), by adding new paragraph (c), by re-designating paragraphs (d) through (f) as paragraphs (g) through (i), by adding new paragraph (f), by re-designating paragraphs (g) through (l) as paragraphs (k) through (p), by adding new paragraph (j), by re-designating paragraph (m) as paragraph (r), and by adding new paragraph (q) to read as follows:

**§ 54.500 Terms and definitions.**

(a) Basic maintenance. A service is eligible for support as a "basic maintenance" service if, but for the maintenance at issue, the internal connection would not function and serve its intended purpose with the degree of reliability ordinarily provided in the marketplace to entities receiving such services. Basic maintenance services do not include services that maintain equipment that is not supported by E-rate or 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.

*****

(c) Consortium. A "consortium" is any local, statewide, regional, or interstate cooperative association of schools and/or libraries eligible for E-rate support that seeks competitive bids for eligible services or funding for eligible services on behalf of some or all of its members. Consortium may also include health care providers eligible under subpart G, and public sector (governmental) entities, including, but not limited to, state colleges and state universities, state educational broadcasters, counties, and municipalities, although such entities are not eligible for support. Eligible schools and libraries may not join consortia with ineligible private sector members unless the pre-discount prices of any services that such consortium receives are generally tariffed rates.

*****

(f) Internal connections. A service is eligible for support as a component of an institution's "internal connections" if such service is necessary to transport or distribute broadband within one or more instructional buildings of a single school campus or within one or more non-administrative buildings that comprise a single library branch.

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(j) Managed internal broadband services. A service is eligible for support as "managed internal broadband services" if provided by a third party for the operation, management, and/or monitoring of the eligible components of a school or library local area network (LAN) and wireless LAN.

*****

(q) Voice services. "Voice services" include local phone service, long distance service, plain old telephone service (POTS), radio loop, 800 service, satellite telephone, shared telephone service, Centrex, wireless telephone service such as cellular, interconnected voice over Internet protocol (VoIP), and the circuit capacity dedicated to providing voice services.

4. Amend § 54.501 by revising paragraphs (a)(1), by removing paragraph (c)(1), and by re-designating paragraphs (c)(2) and (c)(3) as paragraphs (c)(1) and (c)(2) to read as follows:

**§ 54.501 Eligible recipients.**

(a) ***

(1) Only schools meeting the statutory definition of "elementary school" and "secondary school" as defined in § 54.500(e) and (o) of these rules, and not excluded under paragraphs (a)(2) or (a)(3) of this section shall be eligible for discounts on telecommunications and other supported services under this subpart.

*****

5. Amend § 54.502 to read as follows:

**§ 54.502 Eligible services.**

(a) Supported services. All supported services are listed in the Eligible Services List as updated annually in accordance with paragraph (b) of this section. The services in this subpart will be supported in addition to all reasonable charges that are incurred by taking such services, such as state and federal taxes. Charges for termination liability, penalty surcharges, and other charges not included in the cost of taking such service shall not be covered by the universal service support mechanisms. The supported services fall within the following general categories:

(1) Category one. Telecommunications services, telecommunications, and Internet access, as defined in § 54.5 and described in the Eligible Services List are category one supported services.

(2) Category two. Internal connections, basic maintenance and managed internal broadband services as defined in § 54.500 and described in the Eligible Services List are category two supported services.

(b) Funding years 2015 and 2016. Libraries, schools, or school districts with schools that receive funding for category two services in funding years 2015 and/or 2016 shall be eligible for support pursuant to paragraphs (b)(1) through (6).

(1) Five-year budget. Each eligible school or library shall be eligible for a budgeted amount of support for category two services over a five-year funding cycle. Excluding support for internal connections received prior to funding year 2015, each school or library shall be eligible for the total available budget less any support received for category two services in the prior four funding years.

(2) School budget. Each eligible school shall be eligible for support for category two services up to a pre-discount price of $150 per student over a five-year funding cycle. Applicants shall provide the student count per school, calculated at the time that the discount is calculated each funding year. New schools may estimate the number of students, but shall repay any support provided in excess of the maximum budget based on student enrollment the following funding year.

(3) Library budget. Each eligible library shall be eligible for support for category two services, up to a pre-discount price of $2.30 per square foot over a five-year funding cycle. Libraries shall provide the total area for all floors, in square feet, of each library outlet separately, including all areas enclosed by the outer walls of the library outlet and occupied by the library, including those areas off-limits to the public.

(4) Funding floor. Each eligible school and library will be eligible for support for category two services up to at least a pre-discount price of $9,200 over five funding years.

(5) Requests. Applicants shall request support for category two services for each school or library based on the number of students per school building or square footage per library building. Category two funding for a school or library may not be used for another school or library. If an applicant requests less than the maximum budget available for a school or library, the applicant may request the remaining balance in a school's or library's category two budget in subsequent funding years of a five-year cycle. The costs for category two services shared by multiple eligible entities shall be divided reasonably between each of the entities for which support is sought in that funding year.

(6) Non-instructional buildings. Support is not available for category two services provided to or within non-instructional school buildings or separate library administrative buildings unless those category two services are essential for the effective transport of information to or within one or more instructional buildings of a school or non-administrative library buildings, or the Commission has found that the use of those services meets the definition of educational purpose, as defined in § 54.500. When applying for category two support for eligible services to a non-instructional school building or library administrative building, the applicant shall allocate the

cost of providing services to one or more of the eligible school or library buildings that benefit from those services being provided.

(c) Funding year 2017 and beyond. Absent further action from the Commission, each eligible library or school in a school district, which did not receive funding for category two services in funding years 2015 and/or 2016, shall be eligible for support for category two services, except basic maintenance services, no more than twice every five funding years. For the purpose of determining eligibility, the five-year period begins in any funding year in which the school or library receives discounted category two services other than basic maintenance services. If a school or library receives category two services other than basic maintenance services that are shared with other schools or libraries (for example, as part of a consortium), the shared services will be attributed to the school or library in determining whether it is eligible for support. Support is not available for category two services provided to or within non-instructional school buildings or separate library administrative buildings unless those category two services are essential for the effective transport of information to or within one or more instructional buildings of a school or non-administrative library buildings, or the Commission has found that the use of those services meets the definition of educational purpose, as defined in § 54.500.

(d) Eligible services list process. The Administrator shall submit by March 30 of each year a draft list of services eligible for support, based on the Commission's rules for the following funding year. The Wireline Competition Bureau will issue a Public Notice seeking comment on the Administrator's proposed eligible services list. The final list of services eligible for support will be released at least 60 days prior to the opening of the application filing window for the following funding year.

6. Amend § 54.503 by revising paragraphs (c), (d)(2)(i), and (d)(4), and by adding paragraph (e) to read as follows:

**§ 54.503 Competitive bidding requirements.**

*****

(c) Posting of FCC Form 470. (1) An eligible school, library, or consortium that includes an eligible school or library seeking bids for eligible services under this subpart shall submit a completed FCC Form 470 to the Administrator to initiate the competitive bidding process. The FCC Form 470 and any request for proposal cited in the FCC Form 470 shall include, at a minimum, the following information, to the extent applicable with respect to the services requested:

(i) A list of specified services for which the school, library, or consortium requests bids; and

(ii) Sufficient information to enable bidders to reasonably determine the needs of the applicant.

(2) The FCC Form 470 shall be signed by a person authorized to request bids for eligible services for the eligible school, library, or consortium, including such entities.

(i) A person authorized to request bids on behalf of the entities listed on an FCC Form 470 shall certify under oath that:

(A) The schools meet the statutory definition of "elementary school" or "secondary school" as defined in § 54.500(e) or (o) of these rules, do not operate as for-profit businesses, and do not have endowments exceeding $50 million.

(B) The libraries or library consortia eligible for assistance from a State library administrative agency under the Library Services and Technology Act of 1996 do not operate as for-profit businesses and have budgets that are completely separate from any school (including, but not limited to, elementary and secondary schools, colleges, and universities).

(C) Support under this support mechanism is conditional upon the school(s) and library(ies) securing access to all of the resources, including computers, training, software, maintenance, internal connections, and electrical connections necessary to use the services purchased effectively.

(ii) A person authorized to both request bids and order services on behalf of the entities listed on an FCC Form 470 shall, in addition to making the certifications listed in paragraph (c)(2)(i) of this section, certify under oath that:

(A) The services the school, library, or consortium purchases at discounts will be used primarily for educational purposes and will not be sold, resold, or transferred in consideration for money or any other thing of value, except as allowed by § 54.513.

(B) All bids submitted for eligible products and services will be carefully considered, with price being the primary factor, and the bid selected will be for the most cost-effective service offering consistent with § 54.511.

(3) The Administrator shall post each FCC Form 470 that it receives from an eligible school, library, or consortium that includes an eligible school or library on its website designated for this purpose.

(4) After posting on the Administrator's website an eligible school, library, or consortium FCC Form 470, the Administrator shall send confirmation of the posting to the entity requesting service. That entity shall then wait at least four weeks from the date on which its description of services is posted on the Administrator's website before making commitments with the selected providers of services. The confirmation from the Administrator shall include the date after which the requestor may sign a contract with its chosen provider(s).

(d) ***

(1) ***

(2) ***

(i) The terms "school, library, or consortium" include all individuals who are on the governing boards of such entities (such as members of a school committee), and all employees, officers, representatives, agents, consultants or independent contractors of such entities involved on behalf of such school, library, or consortium with the Schools and Libraries Program of the Universal Service Fund (E-rate Program), including individuals who prepare, approve, sign or submit E-rate applications, or other forms related to the E-rate Program, or who prepare bids, communicate or work with E-rate service providers, E-rate consultants, or with USAC, as well as any staff of such entities responsible for monitoring compliance with the E-rate Program; and

(ii) ***

(3) ***

*****

(4) Any service provider may make charitable donations to an eligible school, library, or consortium that includes an eligible school or library in the support of its programs as long as such contributions are not directly or indirectly related to E-rate procurement activities or decisions and are not given by service providers to circumvent competitive bidding and other E-rate program rules, including those in paragraph (c)(2)(i)(C) of this section, requiring schools and libraries to pay their own non-discount share for the services they are purchasing.

(e) Exemption to competitive bidding requirements. An applicant that seeks support for commercially available high-speed Internet access services for a pre-discount price of $3,600 or less per school or library annually is exempt from the competitive bidding requirements in (a) through (c) of this section.

(1) Internet access, as defined in § 54.5, is eligible for this exemption only if the purchased service offers at least 100 Mbps downstream and 10 Mbps upstream.

(2) The Chief, Wireline Competition Bureau, is delegated authority to lower the annual cost of high-speed Internet access services or raise the speed threshold of broadband services eligible for this competitive bidding exemption, based on a determination of what rates and speeds are commercially available prior to the start of the funding year.

7. Amend § 54.504 to read as follows:

**§ 54.504 Requests for services.**

(a) Filing of the FCC Form 471. An eligible school, library, or consortium that includes an eligible school or library seeking to receive discounts for eligible services under this subpart shall, upon entering into a signed contract or other legally binding agreement for eligible services, submit a completed FCC Form 471 to the Administrator.

(1) The FCC Form 471 shall be signed by the person authorized to order eligible services for the eligible school, library, or consortium and shall include that person's certification under oath that:

(i) The schools meet the statutory definition of "elementary school" or "secondary school" as defined in § 54.500(e) or (o) of these rules, do not operate as for-profit businesses, and do not have endowments exceeding $50 million.

(ii) The libraries or library consortia eligible for assistance from a State library administrative agency under the Library Services and Technology Act of 1996 do not operate as for-profit businesses and whose budgets are completely separate from any school (including, but not limited to, elementary and secondary schools, colleges, and universities).

(iii) The entities listed on the FCC Form 471 application have secured access to all of the resources, including computers, training, software, maintenance, internal connections, and electrical connections, necessary to make effective use of the services purchased, as well as to pay the discounted charges for eligible services from funds to which access has been secured in the current funding year. The billed entity will pay the non-discount portion of the cost of the goods and services to the service provider(s).

(iv) The entities listed on the FCC Form 471 application have complied with all applicable state and local laws regarding procurement of services for which support is being sought.

(v) The services the school, library, or consortium purchases at discounts will be used primarily for educational purposes and will not be sold, resold, or transferred in consideration for money or any other thing of value, except as allowed by § 54.513.

(vi) The entities listed in the application have complied with all program rules and acknowledge that failure to do so may result in denial of discount funding and/or recovery of funding.

(vii) The applicant understands that the discount level used for shared services is conditional, for future years, upon ensuring that the most disadvantaged schools and libraries that are treated as sharing in the service, receive an appropriate share of benefits from those services.

(viii) The applicant recognizes that it may be audited pursuant to its application, that it will retain for ten years any and all worksheets and other records relied upon to fill out its application, and that, if audited, it will make such records available to the Administrator.

(ix) Except as exempted by § 54.503(e), all bids submitted to a school, library, or consortium seeking eligible services were carefully considered and the most cost-effective bid was selected in accordance with § 54.503 of this subpart, with price being the primary factor considered, and it is the most cost-effective means of meeting educational needs and technology goals.

(2) All pricing and technology infrastructure information submitted as part of an FCC Form 471 shall be treated as public and non-confidential by the Administrator unless the applicant specifies a statute, rule, or other restriction, such as a court order or an existing contract limitation barring public release of the information.

(i) Contracts and other agreements executed after adoption of this rule may not prohibit disclosure of pricing or technology infrastructure information.

(ii) The exemption for existing contract limitations shall not apply to voluntary extensions or renewals of existing contracts.

(b) Mixed eligibility requests. If 30 percent or more of a request for discounts made in an FCC Form 471 is for ineligible services, the request shall be denied in its entirety.

(c) Rate disputes. Schools, libraries, and consortia including those entities, and service providers may have recourse to the Commission, regarding interstate rates, and to state commissions, regarding intrastate rates, if they reasonably believe that the lowest corresponding price is unfairly high or low.

(1) Schools, libraries, and consortia including those entities may request lower rates if the rate offered by the carrier does not represent the lowest corresponding price.

(2) Service providers may request higher rates if they can show that the lowest corresponding price is not compensatory, because the relevant school, library, or consortium including those entities is not similarly situated to and subscribing to a similar set of services to the customer paying the lowest corresponding price.

(d) Service substitution. (1) The Administrator shall grant a request by an applicant to substitute a service or product for one identified on its FCC Form 471 where:

(i) The service or product has the same functionality;

(ii) The substitution does not violate any contract provisions or state or local procurement laws;

(iii) The substitution does not result in an increase in the percentage of ineligible services or functions; and

(iv) The applicant certifies that the requested change is within the scope of the controlling FCC Form 470, including any associated Requests for Proposal, for the original services.

(2) In the event that a service substitution results in a change in the pre-discount price for the supported service, support shall be based on the lower of either the pre-discount price of the service for which support was originally requested or the pre-discount price of the new, substituted service.

(3) For purposes of this rule, the two categories of eligible services are not deemed to have the same functionality as one another.

(e) Mixed eligibility services. A request for discounts for a product or service that includes both eligible and ineligible components must allocate the cost of the contract to eligible and ineligible components.

(1) Ineligible components. If a product or service contains ineligible components, costs must be allocated to the extent that a clear delineation can be made between the eligible and ineligible components. The delineation must have a tangible basis, and the price for the eligible portion must be the most cost-effective means of receiving the eligible service.

(2) Ancillary ineligible components. If a product or service contains ineligible components that are ancillary to the eligible components, and the product or service is the most cost-effective means of receiving the eligible component functionality, without regard to the value of the ineligible component, costs need not be allocated between the eligible and ineligible components. Discounts shall be provided on the full cost of the product or service. An ineligible component is “ancillary” if a price for the ineligible component cannot be determined separately and independently from the price of the eligible components, and the specific package remains the most cost-effective means of receiving the eligible services, without regard to the value of the ineligible functionality.

(3) The Administrator shall utilize the cost allocation requirements of this subparagraph in evaluating mixed eligibility requests under paragraph (e)(1) of this section.

(f) Filing of FCC Form 473. All service providers eligible to provide telecommunications and other supported services under this subpart shall submit annually a completed FCC Form 473 to the Administrator. The FCC Form 473 shall be signed by an authorized person and shall include that person's certification under oath that:

(1) The prices in any offer that this service provider makes pursuant to the schools and libraries universal service support program have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to those prices, the intention to submit an offer, or the methods or factors used to calculate the prices offered;

(2) The prices in any offer that this service provider makes pursuant to the schools and libraries universal service support program will not be knowingly disclosed by this service provider,

directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt will be made by this service provider to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(4) The service provider listed on the FCC Form 473 certifies that the invoices that are submitted by this Service Provider to the Billed Entity for reimbursement pursuant to Billed Entity Applicant Reimbursement Forms (FCC Form 472) are accurate and represent payments from the Billed Entity to the Service Provider for equipment and services provided pursuant to E-rate program rules.

(5) The service provider listed on the FCC Form 473 certifies that the bills or invoices issued by this service provider to the billed entity are for equipment and services eligible for universal service support by the Administrator, and exclude any charges previously invoiced to the Administrator by the service provider.

8. Amend § 54.505 by revising paragraphs (b)(1), (b)(2), (b)(3)(i), (b)(3)(ii), (b)(4), (c), and adding paragraph (d) to read as follows:

**§ 54.505 Discounts.**

*****

(b) * * *

(1) For schools and school districts, the level of poverty shall be based on the percentage of the student enrollment that is eligible for a free or reduced price lunch under the national school lunch program or a federally-approved alternative mechanism. School districts shall divide the total number of students eligible for the National School Lunch Program within the school district by the total number of students within the school district to arrive at a percentage of students eligible. This percentage rate shall then be applied to the discount matrix to set a discount rate for the supported services purchased by all schools within the school district. Independent charter schools, private schools, and other eligible educational facilities should calculate a single discount percentage rate based on the total number of students under the control of the central administrative agency.

(2) For libraries and library consortia, the level of poverty shall be based on the percentage of the student enrollment that is eligible for a free or reduced price lunch under the national school lunch program or a federally-approved alternative mechanism in the public school district in which they are located and should use that school district's discount rate when applying as a library system or on behalf of individual libraries within that system. Library systems that have branches or outlets in more than one public school district should use the address of the central outlet or main administrative office to determine which school district the library system is in, and should use that school district's discount rate when applying as a library system or on behalf of individual libraries within that system. If the library is not in a school district, then its level of poverty shall be based on an average of the percentage of students eligible for the national school lunch program in each of the school districts that children living in the library's location attend.

(3) * * *

(i) The Administrator shall designate a school or library as "urban" if the school or library is located in an urbanized area as determined by the most recent rural-urban classification by the Bureau of the Census. The Administrator shall designate all other schools and libraries as "rural."

(ii) Any school district or library system that has a majority of schools or libraries in a rural area qualifies for the additional rural discount.

(4) School districts, library systems, or other billed entities shall calculate discounts on supported services described in § 54.502(a) that are shared by two or more of their schools, libraries, or consortia members by calculating an average discount based on the applicable district-wide discounts of all member schools and libraries. School districts, library systems, or other billed entities shall ensure that, for each year in which an eligible school or library is included for purposes of calculating the aggregate discount rate, that eligible school or library shall receive a proportionate share of the shared services for which support is sought. For schools, the discount shall be a simple average of the applicable district-wide percentage for all schools sharing a portion of the shared services. For libraries, the average discount shall be a simple average of the applicable discounts to which the libraries sharing a portion of the shared services are entitled.

(c) Matrices. Except as provided in paragraph (d), the Administrator shall use the following matrices to set discount rates to be applied to eligible category one and category two services purchased by eligible schools, school districts, libraries, or consortia based on the institution's level of poverty and location in an "urban" or "rural" area.

| | Category one schools and libraries discount matrix | | Category two schools and libraries discount matrix | |
|---|---|---|---|---|
| | Discount level | | Discount level | |
| % of students eligible for National School Lunch Program | Urban discount | Rural discount | Urban discount | Rural discount |
| < 1………………………. | 20 | 25 | 20 | 25 |
| 1-19……………………… | 40 | 50 | 40 | 50 |
| 20-34……………………. | 50 | 60 | 50 | 60 |
| 35-49……………………. | 60 | 70 | 60 | 70 |
| 50-74…………………….. | 80 | 80 | 80 | 80 |
| 75-100…………………… | 90 | 90 | 85 | 85 |

(d) Voice Services. Discounts for category one voice services shall be reduced by 20 percentage points off applicant discount percentage rates for each funding year starting in funding year 2015, and reduced by an additional 20 percentage points off applicant discount percentage rates each subsequent funding year.

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9. Amend § 54.507 to read as follows:

**§ 54.507 Cap.**

(a) Amount of the annual cap. The aggregate annual cap on federal universal service support for schools and libraries shall be $2.25 billion per funding year, of which $1 billion per funding year will be available for the category two services, as described in § 54.502(a)(2), unless demand for category one services is higher than available funding.

(1) Inflation increase. In funding year 2010 and subsequent funding years, the $2.25 billion funding cap on federal universal service support for schools and libraries shall be automatically increased annually to take into account increases in the rate of inflation as calculated in paragraph (a)(2) of this section.

(2) Increase calculation. To measure increases in the rate of inflation for the purposes of this paragraph (a), the Commission shall use the Gross Domestic Product Chain-type Price Index (GDP–CPI). To compute the annual increase as required by this paragraph (a), the percentage increase in the GDP–CPI from the previous year will be used. For instance, the annual increase in the GDP–CPI from 2008 to 2009 would be used for the 2010 funding year. The increase shall be rounded to the nearest 0.1 percent by rounding 0.05 percent and above to the next higher 0.1 percent and otherwise rounding to the next lower 0.1 percent. This percentage increase shall be added to the amount of the annual funding cap from the previous funding year. If the yearly average GDP–CPI decreases or stays the same, the annual funding cap shall remain the same as the previous year.

(3) Public notice. When the calculation of the yearly average GDP-CPI is determined, the Wireline Competition Bureau shall publish a public notice in the Federal Register within 60 days announcing any increase of the annual funding cap based on the rate of inflation.

(4) Filing window requests. At the close of the filing window, if requests for category one services are greater than the available funding, the Administrator shall shift category two funds to provide support for category one services. If available funds are sufficient to meet demand for category one services, the Administrator, at the direction of the Wireline Competition Bureau, shall direct the remaining additional funds to provide support for category two requests.

(5) Amount of unused funds. All funds collected that are unused shall be carried forward into subsequent funding years for use in the schools and libraries support mechanism in accordance with the public interest and notwithstanding the annual cap. The Chief, Wireline Competition Bureau, is delegated authority to determine the proportion of unused funds, if any, needed to meet category one demand, and to direct the Administrator to use any remaining funds to provide support for category two requests. The Administrator shall report to the Commission, on a quarterly basis, funding that is unused from prior years of the schools and libraries support mechanism.

(6) Application of unused funds. On an annual basis, in the second quarter of each calendar year, all funds that are collected and that are unused from prior years shall be available for use in the next full funding year of the schools and libraries mechanism in accordance with the public interest and notwithstanding the annual cap as described in this paragraph (a).

(b) Funding year. A funding year for purposes of the schools and libraries cap shall be the period July 1 through June 30.

(c) Requests. Funds shall be available to fund discounts for eligible schools and libraries and consortia of such eligible entities on a first-come-first-served basis, with requests accepted beginning on the first of July prior to each funding year. The Administrator shall maintain on the Administrator's website a running tally of the funds already committed for the existing funding year. The Administrator shall implement an initial filing period that treats all schools and libraries filing within that period as if their applications were simultaneously received. The initial filing period shall begin on the date that the Administrator begins to receive applications for support, and shall conclude on a date to be determined by the Administrator. The Administrator may implement such additional filing periods as it deems necessary.

(d) Annual filing requirement. Schools and libraries, and consortia of such eligible entities shall file new funding requests for each funding year no sooner than the July 1 prior to the start of that funding year. Schools, libraries, and eligible consortia must use recurring services for which discounts have been committed by the Administrator within the funding year for which the discounts were sought. Implementation of non-recurring services may begin on April 1 prior to the July 1 start of the funding year. The deadline for implementation of non-recurring services will be September 30 following the close of the funding year. An applicant may request and receive from the Administrator an extension of the implementation deadline for non-recurring services if it satisfies one of the following criteria:

(1) The applicant's funding commitment decision letter is issued by the Administrator on or after March 1 of the funding year for which discounts are authorized;

(2) The applicant receives a service provider change authorization or service substitution authorization from the Administrator on or after March 1 of the funding year for which discounts are authorized;

(3) The applicant's service provider is unable to complete implementation for reasons beyond the service provider's control; or

(4) The applicant's service provider is unwilling to complete installation because funding disbursements are delayed while the Administrator investigates their application for program compliance.

(e) Long term contracts. If schools and libraries enter into long term contracts for eligible services, the Administrator shall 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.

(f) Rules of distribution. When the filing period described in paragraph (c) of this section closes, the Administrator shall calculate the total demand for both category one and category two support submitted by applicants during the filing period. If total demand for the funding year exceeds the total support available for category one or both categories, the Administrator shall take the following steps:

(1) Category one. The Administrator shall first calculate the demand for category one services for all discount levels. The Administrator shall allocate the category one funds to these requests for support, beginning with the most economically disadvantaged schools and libraries, as determined by the schools and libraries discount matrix in § 54.505(c) of this part. Schools and libraries eligible for a 90 percent discount shall receive first priority for the category one funds. The Administrator shall next allocate funds toward the requests submitted by schools and libraries eligible for an 80 percent discount, then for a 70 percent discount, and shall continue committing funds for category one services in the same manner to the applicants at each descending discount level until there are no funds remaining.

(2) Category two. The Administrator shall next calculate the demand for category two services for all discount categories as determined by the schools and libraries discount matrix in § 54.505(c). If that demand exceeds the category two budget for that funding year, the Administrator shall allocate the category two funds beginning with the most economically disadvantaged schools and libraries, as determined by the schools and libraries discount matrix in

§ 54.505(c) of this part. The Administrator shall allocate funds toward the category two requests submitted by schools and libraries eligible for an 85 percent discount first, then for a 80 percent discount, and shall continue committing funds in the same manner to the applicants at each descending discount level until there are no category two funds remaining.

(3) To the extent that there are single discount percentage levels associated with "shared services" under § 54.505(b)(4), the Administrator shall allocate funds to the applicants at each descending discount level (e.g., 90 percent, 89 percent, then 88 percent) until there are no funds remaining.

(4) For both paragraphs (f)(1) and (2), if the remaining funds are not sufficient to support all of the funding requests within a particular discount level, the Administrator shall allocate funds at that discount level using the percentage of students eligible for the National School Lunch Program. Thus, if there is not enough support to fund all requests at the 40 percent discount level, the Administrator shall allocate funds beginning with those applicants with the highest percentage of NSLP eligibility for that discount level by funding those applicants with 19 percent NSLP eligibility, then 18 percent NSLP eligibility, and shall continue committing funds in the same manner to applicants at each descending percentage of NSLP until there are no funds remaining.

**§ 54.508 [Remove and Reserve]**

10. In § 54.508 remove and reserve paragraphs (a) through (d).

11. Amend § 54.511 to read as follows:

**§ 54.511 Ordering services.**

(a) Selecting a provider of eligible services. Except as exempted in § 54.503(e), in selecting a provider of eligible services, schools, libraries, library consortia, and consortia including any of those entities shall carefully consider all bids submitted and must select the most cost-effective service offering. In determining which service offering is the most cost-effective, entities may consider relevant factors other than the pre-discount prices submitted by providers, but price should be the primary factor considered.

(b) Lowest corresponding price. Providers of eligible services shall not submit bids for or charge schools, school districts, libraries, library consortia, or consortia including any of these entities a price above the lowest corresponding price for supported services, unless the Commission, with respect to interstate services or the state commission with respect to intrastate services, finds that the lowest corresponding price is not compensatory. Promotional rates offered by a service provider for a period of more than 90 days must be included among the comparable rates upon which the lowest corresponding price is determined.

12. Amend § 54.514 to read as follows:

**§ 54.514 Payment for discounted services.**

(a) Invoice Filing Deadline. Invoices must be submitted to the Administrator: (1) 120 days after the last day to receive service, or (2) 120 days after the date of the FCC Form 486 Notification Letter, whichever is later.

(b) Invoice Deadline Extension. In advance of the deadline calculated pursuant to paragraph (a), service providers or billed entities may request a one-time extension of the invoicing deadline. The Administrator shall grant a 120 day extension of the invoice filing deadline, if it is timely requested.

(c) Choice of payment method. Service providers providing discounted services under this subpart in any funding year shall, prior to the submission of the FCC Form 471, permit the billed entity to choose the method of payment for the discounted services from those methods approved by the Administrator, including by making a full, undiscounted payment and receiving subsequent reimbursement of the discount amount from the Administrator.

13. Amend § 54.516 to read as follows:

**§ 54.516 Auditing and inspections.**

(a) Recordkeeping requirements—(1) Schools, libraries, and consortia. Schools, libraries, and any consortium that includes schools or libraries shall retain all documents related to the application for, receipt, and delivery of supported services for at least 10 years after the latter of the last day of the applicable funding year or the service delivery deadline for the funding request. Any other document that demonstrates compliance with the statutory or regulatory requirements for the schools and libraries mechanism shall be retained as well. Schools, libraries, and consortia shall maintain asset and inventory records of equipment purchased as components of supported category two services sufficient to verify the actual location of such equipment for a period of 10 years after purchase.

(2) Service providers. Service providers shall retain documents related to the delivery of supported services for at least 10 years after the latter of the last day of the applicable funding year or the service delivery deadline for the funding request. Any other document that demonstrates compliance with the statutory or regulatory requirements for the schools and libraries mechanism shall be retained as well.

(b) Production of records. Schools, libraries, consortia, and service providers shall produce such records at the request of any representative (including any auditor) appointed by a state education department, the Administrator, the FCC, or any local, state or federal agency with jurisdiction over the entity.

(c) Audits. Schools, libraries, consortia, and service providers shall be subject to audits and other investigations to evaluate their compliance with the statutory and regulatory requirements for the schools and libraries universal service support mechanism, including those requirements pertaining to what services and products are purchased, what services and products are delivered, and how services and products are being used. Schools, libraries, and consortia receiving discounted services must provide consent before a service provider releases confidential information to the auditor, reviewer, or other representative.

(d) Inspections. Schools, libraries, consortia and service providers shall permit any representative (including any auditor) appointed by a state education department, the Administrator, the Commission or any local, state or federal agency with jurisdiction over the entity to enter their premises to conduct E-rate compliance inspections.

**Subpart G—Universal Service Support for Health Care Providers**

14. Amend § 54.642 by revising paragraph (h)(5) to read as follows:

**§ 54.642 Competitive bidding requirements and exemptions.**

*****

(h) ***

(5) Schools and libraries program master contracts. Subject to the provisions in §§ 54.500(k), 54.501(c)(1), and 54.503, an eligible health care provider in a consortium with participants in the schools and libraries universal service support program and a party to the consortium's existing contract is exempt from the Healthcare Connect Fund competitive bidding requirements if the contract was approved in the schools and libraries universal service support program as a master contract. The health care provider must comply with all Healthcare Connect Fund rules and procedures except for those applicable to competitive bidding.

**Subpart H—Administration**

**§ 54.705 Committees of the Administrator's Board of Directors.**

15. Amend § 54.705 by removing and reserving paragraphs (a)(vi), (vii), and (viii).

**Subpart I—Review of Decisions Issued by the Administrator**

16. Amend § 54.719 to read as follows:

**§ 54.719 Parties permitted to seek review of Administrator decision.**

(a) Any party aggrieved by an action taken by the Administrator, as defined in §§ 54.701, 54.703, or 54.705, must first seek review from the Administrator.

(b) Any party aggrieved by an action taken by the Administrator, after seeking review from the Administrator, may then seek review from the Federal Communications Commission, as set forth in § 54.722.

(c) Parties seeking waivers of the Commission's rules shall seek relief directly from the Commission.

17. Amend § 54.720 to read as follows:

**§ 54.720 Filing deadlines.**

(a) An affected party requesting review of an Administrator decision by the Commission pursuant to § 54.719, shall file such a request within sixty (60) days from the date the Administrator issues a decision.

(b) In all cases of requests for review filed under § 54.719(a) through (c) the request for review shall be deemed filed on the postmark date. If the postmark date cannot be determined, the applicant must file a sworn affidavit stating the date that the request for review was mailed.

(c) Parties shall adhere to the time periods for filing oppositions and replies set forth in 47 CFR § 1.45.

## APPENDIX B

### Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 54, as follows:

### PART 54—UNIVERSAL SERVICE

### Subpart F—Universal Service Support for Schools and Libraries

1. The authority citation for part 54 continues to read as follows:

   Sections 1, 4(i), 5, 201, 205, 214, 219, 220, 254, 303(r), and 403 of the Communications Act of 1934, as amended, and section 706 of the Communications Act of 1996, as amended; 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

2. Amend § 54.505 by revising paragraph (b)(4) to read as follows:

   **§ 54.505 Discounts.**

   *****

   (b) ***

   (4) School districts, library systems, consortia, library consortia and other billed entities shall calculate discounts on supported services described in § 54.502(b) that are shared by two or more or their schools, libraries or consortium members by calculating a weighted average based on the number of students in each consortium member. The weighted average shall be calculated by multiplying each member's individual discount rate by its number of students, adding those figures for each member and then dividing by the total number of students in the consortium. Libraries that are consortium members shall substitute 50 square feet of library space for each student.

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## APPENDIX C

**Internal Connection Models**

| **Annual Pre-discount Cost/Classroom** | **Cisco Model** | **ESH/CoSN Model** | **High** | **Low** | **Notes** |
|---|---|---|---|---|---|
| Wireless Access Points (WAPs) | $200 | $177 | $200 | $141 | High: Cisco per-WAP cost and WAP life-cycle assumptions;[1] Low: ESH/CoSN WAP cost assumption, but 5 year service life instead of 4[2] |
| WAP Management/ Controllers | $15 | $30 | $30 | $15 | High: ESH/CoSN assumptions[3] Low: Cisco assumptions[4] |
| Drop Cables | $120 | $108 | $120 | $40 | High: Cisco assumptions[5] Low: Cisco assumptions, but 15 year service life instead of five[6] |
| Access Switches | $93 | $73 | $93 | $49 | High: Cisco assumptions[7] Low: ESH/CoSN assumptions, but four drops per classroom instead of six[8] |

[1] The Cisco Model projects $2,631,858,140 and $44,093,988 for the total cost of WAPs at the classroom and district levels, respectively, for a total of $2,675,952,128. Cisco Model, Attach. at 3. Cisco assumes 2,679,121 total classrooms. *Id.*, Attach. at 1. Thus, the average WAP cost per classroom is $2,675,952,128 divided by 2,679,121, or $999. Cisco assumes a 5-year lifecycle for equipment. *Id.* at 2. Thus, the average annual cost per classroom is $999 divided by five years, or $200 (rounded).

[2] See Letter from Evan Marwell, CEO, EducationSuperHighway, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-184, Attach. at 6 (EdSuperHighway/CoSN Ongoing Cost Model Analysis).

[3] *Id*.

[4] The Cisco Model projects a cost of $196,357,156 for controllers. Cisco Model, Attach. at 3. Thus, the average controller cost per classroom is $196,357,156 divided by 2,679,121, or $73. Cisco assumes 5-year lifecycle for controllers. *Id.* at 2.

[5] The Cisco Model assumes 4 drops per classroom. Cisco Model at 3. The Cisco Model cost for drop cables is taken from the "building wiring and installation" category of the Equipment Detail chart. *Id.*, Attach. at 3.

[6] *See* Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed June 19, 2014) (June 19 Texas ISD *Ex Parte*) (identifying drop cable and internal fiber lifecycles from Houston Independent School District (TX) – 25 years due to a 25 year vendor warranty; Round Rock Independent School District (TX) – 20 years.); Letter from Charles Eberle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, Federal Communications Commission, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 13-184 (filed June 16, 2014) (June 16 Six District *Ex Parte*) (identifying drop cable and internal fiber lifecycles from 6 districts: Burlington Public Schools (MA) – 5-7 years; Fairfax County Public Schools (VA) – 15 years; Lamar County School District (MI) – 10-15 years; Township HS District 214 (IL) – 20 years; School District of Waukesha (WI) – 10+ years; Worcester Public Schools (MA) – 10 years).

[7] The Cisco Model cost for access switches is taken from the "Building Closet switches, incl PoE" category. *See* Cisco Model, Attach. at 3.

[8] EdSuperHighway/CoSN Ongoing Cost Model Analysis at 6.

| | | | | | |
|---|---|---|---|---|---|
| Core Switches/Routers | $313 | $96 | $313 | $64 | High: Cisco assumptions[9]<br>Low: ESH/CoSN assumptions, but four drops per classroom instead of six[10] |
| Fiber Backbone | NA | $63 | $63 | $50 | High: ESH assumptions[11]<br>Low: ESH/CoSN assumptions, but 20 year service life instead of 16[12] |
| Gateways/Routers | $38 | $2 | $38 | $2 | High: Cisco assumptions[13]<br>Low: ESH/CoSN assumptions[14] |
| UPS/PDU | NA | $22 | $22 | $12 | High: ESH/CoSN assumptions[15]<br>Low: ESH/CoSN assumptions but seven year service life instead of four[16] |
| Switch Racks/Accessories | NA | $34 | $34 | $27 | High: ESH/CoSN assumptions[17]<br>Low: ESH/CoSN assumptions but 15 year service life instead of 12[18] |
| Firewall | $11 | $18 | $18 | $11 | High: ESH/CoSN assumptions[19]<br>Low: Cisco assumptions[20] |

[9] Cisco Model, Attach. at 3.

[10] EdSuperHighway/CoSN Ongoing Cost Model Analysis at 6.

[11] *Id*.

[12] *Id*., Attach. at 1 (Switch<->Switch Fiber (4), Total per Classroom); June 19 Texas ISD *Ex Parte* (identifying drop cable and internal fiber lifecycles from Houston Independent School District (TX) – 25 years due to a 25 year vendor warranty; Round Rock Independent School District (TX) – 20 years.); June 16 Six District *Ex Parte* (identifying drop cable and internal fiber lifecycles from 6 districts: Burlington Public Schools (MA) – 5-7 years; Fairfax County Public Schools (VA) – 15 years; Lamar County School District (MI) – 10-15 years; Township HS District 214 (IL) – 20 years; School District of Waukesha (WI) – 10+ years; Worcester Public Schools (MA) – 10 years).

[13] Cisco Model, Attach. at 3.

[14] EdSuperHighway/CoSN Ongoing Cost Model Analysis at 6.

[15] *Id*.

[16] *Id*.; June 19 Texas ISD *Ex Parte* (identifying UPS/PDU lifecycles from Houston Independent School District (TX) – 2 years for UPS, 5 years for PDU; Round Rock Independent School District (TX) – 10 years, with batteries replaced every 5 years); June 16 Six District *Ex Parte* at 1-2 (identifying UPS/PDU lifecycles from 6 districts: Burlington Public Schools (MA) – 3-5 years; Fairfax County Public Schools (VA) – 5 years; Lamar County School District (MI) – 5-7 years; Township HS District 214 (IL) – 3-5 years; School District of Waukesha (WI) – 5 years for UPS, 7 years for PDU; Worcester Public Schools (MA) – 3 years).

[17] EdSuperHighway/CoSN Ongoing Cost Model Analysis at 6.

[18] *Id.* at 6, 14, 16, 19 (we assumed a 15 year service life instead of 12 because racks and accessories "rarely fail").

[19] *Id*. at 6.

[20] Cisco Model, Attach. at 3.

| | | | | | |
|---|---|---|---|---|---|
| Content Filter | NA | $18 | NA | NA | Not supported[21] |
| Wireless Site Survey | NA | $32 | $32 | $0 | High: ESH/CoSN assumptions[22]<br>Low: Performed in house or by equipment vendor |
| VPN Equipment | $4 | NA | NA | NA | Not supported[23] |
| Installation/ Configuration | $117 | Included in equipment cost | $117 | Included in equipment cost | High: Cisco assumptions[24]<br>Low: Included in equipment cost per ESH/CoSN[25] |
| Maintenance/Support | $171 | $198 | $198 | $82 | High: ESH/CoSN assumptions[26]<br>Low: Maintenance calculated as 20 percent of equipment costs based on historical E-rate ratio of BMIC funding to IC funding[27] |
| **Annual Cost/Classroom** | **$1,081** | **$869** | **$1,278** | **$494** | |
| Average Number of Students/Classroom | 18.3 | 19.8 | 17 | 22 | High: Conservative estimate from record data[28]<br>Low: NCES average students per classroom for 2011-12[29] |
| **Average Cost/Student** | **$59** | **$44** | **$75** | **$22** | |

Note: This appendix converts cost projections from the EdSuperHighway/CoSN Ongoing Cost Model and the Cisco Model that are on a per classroom, per school, or per district basis to projections that are on a per classroom and per student basis. These conversions are purely arithmetic, and have been made solely for the purpose of facilitating assessment of the models.

*Cisco Model.* Cisco's model projects the costs for LAN/WLAN network components at the classroom, school, and district level. The Cisco Model estimates the total number of classrooms in the country as

[21] *See Federal-State Joint Board on Universal Service, Children's Internet Protection Act*, CC Docket No. 96-45, Report and Order, 16 FCC Rcd 8182, 8204 at paras. 54-55 (2001) *(2001 CIPA Order).*

[22] EdSuperHighway/CoSN Ongoing Cost Model Analysis at 6.

[23] *See supra* para. 120.

[24] Cisco Model, Attach. at 3.

[25] EdSuperHighway/CoSN Ongoing Cost Model Analysis at 6.

[26] *Id*. at 8-9.

[27] We obtained the amount of funding committed to Internal Connections and BMIC from USAC's commitment search tool, http://www.usac.org/sl/tools/commitments-search/Default.aspx (last visited July 10, 2014). The five-year average ratio of BMIC to Internal Connections funding for the period 2008-2012 was 18.8 percent, which we rounded up to 20 percent.

[28] *See supra* para. 92.

[29] U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Data File," 2011–12, http://nces.ed.gov/surveys/sass/tables/sass1112_2013314_t1s_007.asp (last visited July 10, 2014). The weighted average class size for the U.S. for 2011-2012 is 23 students.

2,679,121, which they state they derived from NCES 2006-2007 data.[30] We derived an average student per classroom figure by dividing the total number of students reported in 2006-2007 NCES data (49,315,842) by Cisco's estimated classroom count, for a figure of 18.3 students per classroom.

We therefore determined the per-classroom cost of each network component in the model as follows: first, we added the projected costs of each component at the classroom, school, and district levels. We then divided the total cost of each component by Cisco's estimate of the total number of classrooms to determine the per-classroom average cost of that component. Likewise, we calculated the per-classroom average costs for installation and maintenance by dividing the total costs for those services by Cisco's estimate of the total number of classrooms.

We then summed the average costs per classroom associated with equipment, installation, and maintenance to determine the average cost per classroom. Given that the Cisco Model assumes a five-year lifecycle for all equipment, dividing the average cost per classroom by five yields the average annual cost per classroom.

We determined the average annual cost per student by dividing the average annual cost per classroom by the average student per classroom figure of 18.3.

We illustrate the process with the following example. Cisco's model projected $2,631,858,140 and $44,093,988 for the total cost of WAPs at the classroom and district levels, respectively. The model does not identify any costs at the school level. We determine the total cost for WAPs as $2,675,952,128 by adding the total costs of WAPs at the classroom and district level. The total number of classrooms, as estimated by Cisco, is 2,679,121. By diving $2,675,952,128, the total cost for WAPs, by 2,679,121, the estimated total number of classrooms, we determine the average WAP cost per classroom at $999. We then determined the average annual WAP cost by dividing $999 by Cisco's lifecycle estimate of 5 years, for an annual WAP cost per classroom of $199.80, which we round to $200.

*ESH/CoSN Ongoing Cost Model*. The ESH/CoSN Ongoing Cost Model also projects the costs for LAN/WLAN network components at the classroom, school, and district level, so we followed the same procedure as with the Cisco Model, with these exceptions:

1. ESH/CoSN assumed different lifecycles for different types of equipment. We therefore determined the annual amortized cost for each item based on ESH/CoSN's lifecycle assumptions.
2. The ESH/CoSN Ongoing Cost Model assumes 2,500,000 classrooms in the United States.[31] We derived an average student per classroom figure by dividing the total number of students reported in 2011-2012 NCES data (49,521,669) by ESH/CoSN's estimated classroom count, for a figure of 19.8 students per classroom.

[30] U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Public Elementary/Secondary Education Survey", 2006-07 v.1c, 2011-12 v.1a., http://nces.ed.gov/ccd/elsi/tableGenerator.aspx (last visited July 10, 2014).

[31] ESH/CoSN Ongoing Cost Model Analysis at 8.

## APPENDIX D

## Cited *E-Rate Modernization NPRM* Comments and Reply Comments

### Cited Comments

| Name of Filer | Abbreviation | Filing Date |
|---|---|---|
| AASA – The School Superintendent's Association | AASA | Aug. 27, 2013 |
| ACT, Inc. | ACT | Sept. 13, 2013 |
| Administrative and Technical Consulting, Inc. | AdTec | Sept. 16, 2013 |
| ADTRAN, Inc. | Adtran | Sept. 16, 2013 |
| Alabama Department of Education | Alabama DOE | Sept. 16, 2013 |
| Alliance for Excellent Education | Alliance | Sept. 16, 2013 |
| American Cable Association | ACA | Sept. 16, 2013 |
| American e-Rate Solutions | American e-Rate | Sept. 16, 2013 |
| American Library Association | ALA | Sept. 16, 2013 |
| Amplify Education, Inc. | Amplify | Sept. 16, 2013 |
| Amy Biehl Charter School | Amy Biehl | Sept. 17, 2013 |
| AT&T Corp | AT&T | Sept. 16, 2013 |
| Barbara Nemko | Barbara Nemko | Sept. 16, 2013 |
| Big Spring School District | Big Spring | Sept. 16, 2013 |
| Boston Renaissance Charter Public School | Boston Renaissance | Sept. 16, 2013 |
| Brett Stoneberger on behalf of Bureau of Indian Affairs And Bureau of Indian Education | BIA/BIE | Sept. 16, 2013 |
| Broadcore, Inc. | Broadcore | Sept. 16, 2013 |
| Butte County Office of Education | Butte County | Sept. 17, 2013 |
| California School Boards Association | California SBA | Sept. 16, 2013 |
| Capistrano Unified School District | Capistrano USD | Sept. 16, 2013 |
| Carnegie Library of Pittsburgh | Carnegie Library | Sept. 16, 2013 |
| CenturyLink | CenturyLink | Sept. 16, 2013 |
| Cisco Systems, Inc. | Cisco Systems, Inc. | Sept. 16, 2013 |
| City of Boston, Massachusetts | Boston | Sept. 16, 2013 |
| City of Philadelphia, on behalf of Free Library of Philadelphia | Philadelphia | Sept. 16, 2013 |
| Clark County School District | Clark County | Sept. 16, 2013 |
| Colorado Association of Leaders in Educational Technology | CALET | Sept. 16, 2013 |
| Communications Workers of America | CWA | Sept. 16, 2013 |
| Comcast Corporation | Comcast | Sept. 16, 2013 |
| Connected Nation | Connected Nation | Sept. 16, 2013 |
| Council of the Great City Schools | Council | Sept. 16, 2013 |
| Cox Communications, Inc. | Cox | Sept. 16, 2013 |
| CRW Consulting | CRW | Sept. 16, 2013 |
| CSM, Inc. | CSM | Sept. 16, 2013 |
| Eastex Telephone Cooperative and Riviera Telephone Co. | Eastex/Riviera | Sept. 16, 2013 |
| eBackpack, Inc. | eBackpack | Sept. 16, 2013 |
| eDimension, LLC | eDimension | Sept. 12, 2013 |
| Edline, LLC d/b/a Blackboard Engage | Blackboard Engage | Sept. 16, 2013 |
| Education & Libraries Networks Coalition | EdLiNC | Sept. 16, 2013 |
| Education Coalition | EdCo | Sept. 16, 2013 |
| Education Networks of America, Inc. | ENA | Sept. 16, 2013 |

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|---|---|---|
| EducationSuperHighway | EdSuperHighway | Sept. 16, 2013 |
| Electronic Information Network | EIN | Sept. 16, 2013 |
| E-Rate & Educational Services, LLC | EES | Sept. 16, 2013 |
| E-Rate Central | E-Rate Central | Sept. 16, 2013 |
| E-Rate Management Professionals Association | E-mpa | Sept. 16, 2013 |
| E-rate Provider Services, LLC | EPS | Sept. 16, 2013 |
| E-rate Reform Coalition | E-Rate Reform | Sept. 16, 2013 |
| E-rate Service Providers Association | ESPA | Sept. 16, 2013 |
| Fairfax County Public Schools | Fairfax PS | Sept. 9, 2013 |
| Florida Department of Management Services Division of Telecommunications | Florida DMS | Sept. 16, 2013 |
| Friday Institute, North Carolina State University | Friday Institute | Sept. 16, 2013 |
| Funds for Learning, LLC | FFL | Sept. 16, 2013 |
| Gaggle.Net, Inc. | Gaggle | Sept. 16, 2013 |
| General Communication, Inc. | GCI | Sept. 16, 2013 |
| Glenn County Office of Education | Glenn County | Sept. 12, 2013 |
| Gray Salada | Gray Salada | Sept. 17, 2013 |
| Hewlett-Packard Company | HP | Sept. 16, 2013 |
| Hispanic Information and Telecommunications Network, Inc. | HITN | Sept. 16, 2013 |
| Houston Independent School District | Houston ISD | Sept. 13, 2013 |
| Humboldt County Office of Education Rural Telecommunications Consortium | Humboldt County | Sept. 16, 2013 |
| Illinois Department of Central Management Services | Illinois CMS | Sept. 16, 2013 |
| Illinois Fiber Resources Group | iFiber | Sept. 13, 2013 |
| Imperial County Office of Education | Imperial County | Sept. 16, 2013 |
| International Society of Technology in Education | ISTE | Sept. 16, 2013 |
| Intrafinity, Inc. (o/a SharpSchool) | Intrafinity | Sept. 16, 2013 |
| Iowa Department of Education | Iowa DOE | Sept. 16, 2013 |
| ITTA – The Independent Telephone & Telecommunications Alliance | ITTA | Sept. 16, 2013 |
| Jeff Jennings | Jennings | Sept. 16, 2013 |
| Kansas State Department of Education | KSDE | Sept. 16, 2013 |
| Kellogg & Sovereign Consulting | Kellogg & Sovereign | Sept. 17, 2013 |
| Kentucky Department of Libraries Archives | KDLA | Sept. 16, 2013 |
| Kentucky Department of Education | Kentucky DOE | Sept. 16, 2013 |
| Knox County Schools | Knox County | Sept. 16, 2013 |
| Lancaster Lebanon Intermediate Unit 13 | Lancaster Lebanon | Sept. 16, 2013 |
| LEAD Commission | LEAD | Sept. 17, 2013 |
| Lee County Schools | Lee County | Sept. 16, 2013 |
| Los Angeles Unified School District | LAUSD | Sept. 13, 2014 |
| Mary Mehsikomer, TIES | TIES | Sept. 12, 2013 |
| Massachusetts Department of Telecommunications and Cable | MDTC | Sept. 16, 2013 |
| McGraw-Hill Education | McGraw-Hill | Sept. 16, 2013 |
| Miami-Dade Public Schools | Miami-Dade | Sept. 11, 2013 |
| Merit Networks | Merit | Sept. 16, 2013 |
| Mississippi Educational Technology Leaders Association | METLA | Sept. 16, 2013 |
| Missouri Research and Education Network | MOREnet | Sept. 16, 2013 |
| Minority Media and Telecommunications Council, The Rainbow Push Coalition, and the League of United Latin American Citizens | MMTC | Sept. 16, 2013 |

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|---|---|---|
| National Association of Federally Impacted Schools | NAFIS | Sept. 16, 2013 |
| National Association of Independent Schools | NAIS | Sept. 13, 2013 |
| National Association of State Boards of Education | NASBE | Sept. 16, 2013 |
| National Association of State Chief Information Officers | NASCIO | Sept. 13, 2013 |
| National Association of State Utility Consumer Advocates | NASUCA | Sept. 16, 2013 |
| National Cable & Telecommunications Association | NCTA | Sept. 16, 2013 |
| National Catholic Educational Association | NCEA | Sept. 5, 2013 |
| National Education Association | NEA | Sept. 16, 2013 |
| National Hispanic Media Coalition | NHMC | Sept. 16, 2013 |
| National Indian Education Association | NIEA | Sept. 16, 2013 |
| Navajo Nation Telecommunications Regulatory Commission | NNTRC | Sept. 16, 2013 |
| Nebraska Office of the Chief Information Officer | Nebraska OCIO | Sept. 16, 2013 |
| New Hope Technology Foundation | New Hope | Sept. 16, 2013 |
| New York City Department of Education | NYCDOE | Sept. 16, 2013 |
| National Telephone Cooperative Association and WTA- Rural Broadband Advocates | NTCA/WTA | Sept. 16, 2013 |
| Open Technology Institute at The New America Foundation | New America | Sept. 16, 2013 |
| Pennsylvania Association of Intermediate Units | PAIU | Sept. 16, 2013 |
| Pacifica School District | Pacifica | Sept. 9, 2013 |
| Pamela Tucker | Pamela Tucker | Sept. 16, 2013 |
| PCIA – The Wireless Infrastructure Association and HetNet Forum | PCIA | Sept. 16, 2013 |
| Puerto Rico Broadband Taskforce | PRBT | Sept. 16, 2013 |
| Richmond County Schools GA | Richmond County | Sept. 16, 2013 |
| Riverside County Office of Education | Riverside County | Sept. 16, 2013 |
| Riverside Unified School District | Riverside USD | Sept. 16, 2013 |
| San Diego County Office of Education | San Diego County | Sept. 16, 2013 |
| San Jacinto Unified School District | San Jacinto | Sept. 16, 2013 |
| San Mateo County Office of Education | San Mateo | Sept. 16, 2013 |
| School District of Philadelphia | Philadelphia SD | Sept. 16, 2013 |
| Schools, Health and Libraries Broadband Coalition | SHLB | Sept. 16, 2013 |
| Schoolwires, Inc. | Schoolwires | Sept. 16, 2013 |
| Scranton Public Library | Scranton Public Library | Sept. 12, 2013 |
| Software & Information Industry Association | SIIA | Sept. 16, 2013 |
| South Carolina K-12 School Technology Initiative | SC K-12 Initiative | Sept. 16, 2013 |
| South Dakota Department of Education and Bureau of Information and Telecommunications | SDDOE | Sept. 16, 2013 |
| Springfield Public Schools | Springfield PS | Sept. 16, 2013 |
| Sprint Corp. | Sprint | Sept. 16, 2013 |
| State Educational Technology Directors Association | SETDA | Sept. 16, 2013 |
| State E-rate Coordinators' Alliance | SECA | Sept. 16, 2013 |
| State of Alaska | Alaska EED | Sept. 16, 2013 |
| State of Arkansas | Arkansas | Sept. 16, 2013 |
| State of Hawaii | Hawaii | Sept. 16, 2013 |
| Sunesys, LLC | Sunesys | Sept. 16, 2013 |
| Telecommunications Industry Association | TIA | Sept. 16, 2013 |
| The Quilt | The Quilt | Sept. 16, 2013 |
| U. S. TelePacific Corporation and Mpower Communications Corporation | TelePacific | Sept. 16, 2013 |

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|---|---|---|
| United States Telecom Association | USTA | Sept. 16, 2013 |
| Urban Libraries Council | ULC | Sept. 16, 2013 |
| United States Cellular | U. S. Cellular | Sept. 16, 2013 |
| Utah Education Network | UEN | Sept. 16, 2013 |
| VectorUSA | VectorUSA | Sept. 16, 2013 |
| Verizon and Verizon Wireless | Verizon | Sept. 16, 2013 |
| Vermont Department of Libraries | Vermont DOL | Sept. 16, 2013 |
| Visions in Education, K-12 Charter School | Visions | Sept. 12, 2013 |
| Weslaco Independent School District | Weslaco ISD | Sept. 16, 2013 |
| West Virginia Department of Education | WVDE | Sept. 16, 2013 |
| Windstream Corporation | Windstream | Sept. 16, 2013 |
| Wisconsin Department of Public Instruction | Wisconsin DPI | Sept. 16, 2013 |
| Xirrus, Inc. | Xirrus | Sept. 16, 2013 |

**Cited Reply Comments**

| **Name of Filer** | **Abbreviation** | **Filing Date** |
|---|---|---|
| Adams County Public Library | Adams County | Nov. 8, 2013 |
| Adelphoi Education | Adelphoi Education | Nov. 8, 2013 |
| Alaska Rural Coalition | ARC | Nov. 8, 2013 |
| American Cable Association | ACA | Nov. 8, 2013 |
| American Library Association | ALA | Nov. 7, 2013 |
| Amplify Education, Inc. | Amplify | Nov. 8, 2013 |
| Association of Tribal Archives, Libraries and Museums | ATALM | Nov. 4, 2013 |
| Bill and Melinda Gates Foundation | Gates Foundation | Oct. 24, 2013 |
| Brian Lewis, CEO ISTE | ISTE | Nov. 8, 2013 |
| Cbeyond, EarthLink, Integra, Level 3 & tw telecom | Cbeyond | Nov. 8, 2013 |
| Cellular South, Inc. (d/b/a C Spire Wireless) and Telepak, Inc. (d/b/a C Spire Fibre) | C Spire | Nov. 8, 2013 |
| CenturyLink | CenturyLink | Nov. 8, 2013 |
| Chicago Public Schools, Chicago Public Library and City of Chicago | Chicago | Nov. 8, 2013 |
| Cisco Systems, Inc. | Cisco | Nov. 8, 2013 |
| COMPTEL | COMPTEL | Nov. 8, 2013 |
| Confederated Tribes of Colville Reservation | Confederated Tribes | Nov. 8, 2013 |
| Connected Nation | Connected Nation | Nov. 8, 2013 |
| Consortium for School Networking | CoSN | Nov. 6, 2013 |
| Council of the Great City Schools | Council | Nov. 8, 2013 |
| Cox Communications, Inc. | Cox | Nov. 8, 2013 |
| Cristo Rey Philadelphia High School | Cristo Rey | Nov. 8, 2013 |
| CSM, Inc. | CSM | Nov. 8, 2013 |
| Digital Promise League of Innovative Schools | Digital Promise | Nov. 8, 2013 |
| eChalk, LLC | eChalk | Oct. 17, 2013 |
| Ednetics, Inc. | Ednetics | Nov. 8, 2013 |
| Education Coalition | EdCo | Nov. 8, 2013 |
| EducationSuperHighway | EdSuperHighway | Nov. 7, 2013 |
| E-Rate Management Professionals Association | E-mpa | Nov. 8, 2013 |
| Fox Chapel Area School District | Fox Chapel | Nov. 8, 2013 |
| Frontier Communications | Frontier | Nov. 8, 2013 |
| Google Inc. | Google | Nov. 8, 2013 |

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|---|---|---|
| Hispanic Information and Telecommunications Network, Inc. | HITN | Nov. 8, 2013 |
| Illinois Department of Central Management Services | Illinois CMS | Nov. 8, 2013 |
| Illinois State Board of Education | Illinois | Nov. 8, 2013 |
| Illinois State Library | Illinois Library | Nov. 7, 2013 |
| Iowa Department of Education | Iowa DOE | Nov. 5, 2013 |
| Jive Communications, Inc. | Jive | Nov. 8, 2013 |
| Kentucky Department for Libraries and Archives | KDLA | Nov. 8, 2013 |
| LEAD Commission | LEAD | Nov. 8, 2013 |
| Missouri Department of Elementary and Secondary Education | Missouri DOE | Oct. 17, 2013 |
| Multicultural Academy Charter School | Multi-Cultural Academy | Nov. 8, 2013 |
| National Cable & Telecommunications Association | NCTA | Nov. 8, 2013 |
| National Congress of American Indians | NCAI | Nov. 8, 2013 |
| New America Foundation – Open Technology Institute and Education Policy Program | New America | Nov. 8, 2013 |
| New Hope Technology Foundation | New Hope | Nov. 12, 2013 |
| New York State Education Department | NYSED | Nov. 8, 2013 |
| National Telephone Cooperative Association and WTA - Rural Broadband Advocates | NTCA/WTA | Nov. 8, 2013 |
| On-Tech Consulting, Inc. | On-Tech | Nov. 12, 2013 |
| Pioneer Telephone Cooperative, Inc. | Pioneer | Nov. 4, 2013 |
| Public Interest | Public Interest | Nov. 8, 2013 |
| Santa Fe Indian School | Santa Fe | Nov. 8, 2013 |
| Schoolwires, Inc. | Schoolwires | Nov. 8, 2013 |
| SmartEdgeNet, LLC | SmartEdgeNet | Nov. 8, 2013 |
| Sno-Isle Intercounty Rural Library District | Sno-Isle Libraries | Nov. 5, 2013 |
| South Texas Association of Schools | South Texas | Nov. 4, 2013 |
| State E-rate Coordinators' Alliance | SECA | Nov. 8, 2013 |
| State Consortia Group | SCG | Nov. 8, 2013 |
| State Library of Kansas | Kansas Library | Oct. 18, 2013 |
| State of Hawaii | Hawaii | Nov. 8, 2013 |
| Tennessee Educational Technology Association | TETA | Nov. 8, 2013 |
| The Benton Foundation | Benton | Nov. 8, 2013 |
| The Seattle Public Library | Seattle Library | Nov. 7, 2013 |
| T-Mobile USA, Inc. | T-Mobile | Nov. 8, 2013 |
| Urban Libraries Council | ULC | Nov. 8, 2013 |
| Vigo County School Corporation | Vigo County | Oct. 17, 2013 |
| Windstream Corporation | Windstream | Nov. 8, 2013 |
| XO Communications | XO | Nov. 12, 2013 |

## APPENDIX E

### Cited *E-rate Modernization PN* Comments and Reply Comments

### Cited Comments

| Name of Filer | Abbreviation | Filing Date |
|---|---|---|
| AASA – The School Superintendent's Association | AASA | Apr. 7, 2014 |
| Alaska Communications Systems | ACS | Apr. 7, 2014 |
| Alliance for Excellent Education | Alliance | Apr. 7, 2014 |
| American Library Association | ALA | Apr. 7, 2014 |
| Amplify Education, Inc. | Amplify | Apr. 7, 2014 |
| Ann Joslin | Ann Joslin | Apr. 21, 2014 |
| Brett Stoneberger | Stoneberger | Apr. 7, 2014 |
| Bright House Networks | Bright House | Apr. 7, 2014 |
| California Department of Education | California DOE | Apr. 7, 2014 |
| California Emergency Technology Fund | CETF | Apr. 7, 2014 |
| Chicago Public Schools, Chicago Public Library, and City of Chicago | Chicago | Apr. 8, 2014 |
| City of Boston, Massachusetts | Boston | Apr. 7, 2014 |
| Consortium for School Networking | CoSN | Apr. 7, 2014 |
| Council of the Great City Schools | Council | Apr. 7, 2014 |
| Cox Communications, Inc. | Cox | Apr. 7, 2014 |
| Dennis Small, on behalf of Washington Office of Public Instruction | Washington OPI | Apri. 7, 2014 |
| Edline, LLC d/b/a Blackboard Engage | Blackboard Engage | Apr. 7, 2014 |
| Education & Library Networks Coalition | EdLiNC | Apr. 7, 2014 |
| Education Coalition | EdCo | Apr. 7, 2014 |
| Education Networks of America, Inc. | ENA | Apr. 7, 2014 |
| EducationSuperHighway | EdSuperHighway | Apr. 7, 2014 |
| E-Rate Provider Services, LLC | EPS | Apr. 7, 2014 |
| Free Library of Philadelphia | Free Library | Apr. 7, 2014 |
| Funds for Learning, LLC | FFL | Apr. 7, 2014 |
| Hewlett-Packard Company | HP | Apr. 7, 2014 |
| Illinois Department of Central Management Services | Illinois CMS | Apr. 7, 2014 |
| International Association for K-12 Online Learning | iNACOL | Apr. 7, 2014 |
| Integrated Logic | Integrated Logic | Apr. 7, 2014 |
| Intelagent Resources, LLC | Intelagent Resources | Mar. 31, 2014 |
| ITTA – The Voice of Mid-Size Telecommunications Carriers | ITTA | Apr. 7, 2014 |
| Jive Communications, Inc. | Jive | Apr. 7, 2014 |
| Julia Benincosa Legg, on behalf of West Virginia Department of Education | WVDE | Apr. 8, 2014 |
| Julie Shook | Julie Shook | Mar. 26, 2014 |
| Kentucky Department for Libraries & Archives | KDLA | Apr. 7, 2014 |
| Miami-Dade County Public Schools | Miami-Dade | Apr. 7, 2014 |
| Microsoft Corporation | Microsoft | Apr. 7, 2014 |
| Mississippi Concerned Technology Coordinators | MCTC | Apr. 7, 2014 |
| Mississippi Educational Technology Leaders Association | METLA | Apr. 7, 2014 |

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|---|---|---|
| Minority Media and Telecommunications Council, The Rainbow Push Coalition, and the League of United Latin American Citizens | MMTC | Apr. 7, 2014 |
| National Association of Elementary School Principals | NAESP | Apr. 7, 2014 |
| National Education Association | NEA | Apr. 7, 2014 |
| Navajo Nation Telecommunications Regulatory Commission | NNTRC | Apr. 7, 2014 |
| Nebraska Office of the Chief Information Officer | Nebraska OCIO | Apr. 8, 2014 |
| New America Foundation – Open Technology Institute And Education Policy Program | New America | Apr. 7, 2014 |
| Ohio E-rate Consortium | Ohio ERC | Apr. 7, 2014 |
| Partnership for 21st Century | 21st Century Skills | Apr. 7, 2014 |
| Sheri Callen | Sheri Callen | May 30, 2014 |
| SHLB Coalition | SHLB | Apr. 7, 2014 |
| South Dakota Department of Education and Bureau of Information and Telecommunications | SDDOE | Apr. 2, 2014 |
| Sprint Corp. | Sprint | Apr. 7, 2014 |
| State Educational Technology Directors Association | SETDA | Apr. 3, 2014 |
| State E-rate Coordinators' Association | SECA | Apr. 3, 2014 |
| Steven Kaplan | Steven Kaplan | Apr. 7, 2014 |
| Telecommunications Industry Association | TIA | Apr. 7, 2014 |
| Telepak Networks, Inc. d/b/a C Spire Fiber | C Spire Fiber | Apr. 7, 2014 |
| The Quilt | Quilt | Apr. 7, 2014 |
| Tribal Commenters | Tribal Commenters | Apr. 7, 2014 |
| Valerie Oliver | Valerie Oliver | Apr. 7, 2014 |
| Verizon | Verizon | Apr. 7, 2014 |
| Weslaco Independent School District | Weslaco ISD | Apr. 7, 2014 |
| Wisconsin Dept. of Public Instruction | Wisconsin DPI | Apr. 7, 2014 |

**Cited Reply Comments**

| **Filer Name** | **Abbreviation** | **Filing Date** |
|---|---|---|
| Alliance for Excellent Education | Alliance | Apr. 21, 2014 |
| American Cable Association | ACA | Apr. 21, 2014 |
| Association of Tribal Archives, Libraries, and Museums | ATALM | Jun. 5, 2014 |
| Cisco Systems | Cisco | Apr. 21, 2014 |
| Computing in the Core | Computing | Apr. 21, 2014 |
| Connected Nation | Connected Nation | Apr. 21, 2014 |
| Council for the Great City Schools | Council | Apr. 21, 2014 |
| EducationSuperHighway | EdSuperHighway | Apr. 21, 2014 |
| E-rate Central | E-Rate Central | Apr. 21, 2014 |
| James W. Idol, on behalf of Knox County Schools | Knox County | Apr. 22, 2014 |
| Kellogg & Sovereign Consulting | Kellogg & Sovereign | Apr. 21, 2014 |
| Kentucky Department for Libraries & Archives | KDLA | Apr. 21, 2014 |
| Los Angeles Unified School District | LAUSD | Apr. 21, 2014 |
| Makah Tribe and Cape Flattery School District | Makah | Apr. 7, 2014 |
| Mississippi Concerned Technology Coordinators | MCTC | Apr. 21, 2014 |
| New Hope Technology Foundation | New Hope | Apr. 21, 2014 |
| Pennsylvania Association of Intermediate Units | PAIU | Apr. 21, 2014 |
| State of Arkansas | Arkansas | Apr. 21, 2014 |
| Telepak Networks, Inc. d/b/a C Spire Fiber | C Spire Fiber | Apr. 21, 2014 |
| Urban Libraries Council | ULC | Apr. 21, 2014 |

## APPENDIX F

### Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] the Federal Communications Commission (Commission) included an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the *E-rate Modernization NPRM* in WC Docket No. 13-184.[2] The Commission sought written public comment on the proposals in the *E-rate Modernization NPRM*, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

**A. Need for, and Objectives of, the Proposed Rule**

2. The Commission is required by section 254 of the Communications Act of 1934, as amended, to promulgate rules to implement the universal service provisions of section 254.[3] On May 8, 1997, the Commission adopted rules to reform its system of universal service support mechanisms so that universal service is preserved and advanced as markets move toward competition.[4] Specifically, under the schools and libraries universal service support mechanism, also known as the E-rate program, eligible schools, libraries, and consortia that include eligible schools and libraries may receive discounts for eligible telecommunications services, Internet access, and internal connections.[5]

3. In July 2013, the Commission issued a Notice of Proposed Rulemaking seeking public comment on proposals to update the E-rate program to focus on 21st Century broadband needs of schools and libraries.[6] Then, in February 2014, the Wireline Competition Bureau (Bureau) issued a Public Notice seeking focused comment on issues raised in the *E-rate Modernization NPRM*.[7] In this Report and Order, the Commission adopts a number of the proposals put forward in the *E-rate Modernization NPRM* and discussed in the *E-rate Modernization Public Notice*.

4. This Report and Order continues the Commission's efforts to promote broadband access for schools and libraries. In it, we adopt goals and measures for the E-rate program to (1) ensure affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries, (2) maximize the cost-effectiveness of spending for E-rate supported purchases, and (3) make the E-rate application process and other E-rate processes fast, simple and efficient.

5. The rule changes we adopt support these goals and fall into three conceptual categories. First, we ensure affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries by providing more reliable and equitable funding for broadband without schools and libraries and by phasing down support for legacy services. Second, we maximize the cost-effectiveness of spending for E-rate supported purchases by increasing transparency in

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[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

[2] *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Notice of Proposed Rulemaking, 28 FCC Rcd 11304 (2013) (*E-rate Modernization NPRM*).

[3] *See* 47 U.S.C. § 254 *passim*.

[4] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9006-9008, paras. 431-434 (1997).

[5] 47 C.F.R. §§ 54.502, 54.503.

[6] *E-rate Modernization NPRM*, 28 FCC Rcd 11304.

[7] *Wireline Competition Bureau Seeks Focused Comment on E-rate Modernization*, WC Docket No. 13-184, Public Notice, 29 FCC Rcd 2174 (Wireline Comp. Bur. Mar. 6, 2014) (*E-rate Modernization Public Notice*).

the purchasing process, encouraging consortium purchasing, and amending the lowest corresponding price (LCP) rule. Third, we make the E-rate application process and other E-rate processes fast, simple, and efficient by simplifying the application process; simplifying discount rate calculations; simplifying the invoicing and disbursement process; requiring filing of appeals with USAC; directing USAC to adopt additional measures to streamline the administration of the E-rate program; and protecting against waste, fraud, and abuse.

### B. Summary of Significant Issues Raised by Public Comments to the IRFA

6. No comments specifically addressed the IRFA.

### C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules May Apply

7. 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.[8] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[9] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[10] 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).[11] Nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA.[12] A "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[13]

8. Nationwide, as of 2002, there were approximately 1.6 million small organizations.[14] The term "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."[15] Census Bureau data for 2002 indicate that there were 87,525 local governmental jurisdictions in the United States.[16] We estimate that, of this total, 84,377 entities were "small governmental jurisdictions."[17] Thus, we estimate that most governmental jurisdictions are small.

[8] 5 U.S.C. § 603(b)(3).

[9] 5 U.S.C. § 601(6).

[10] 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).

[11] *See* 15 U.S.C. § 632.

[12] *See* SBA, Office of Advocacy, "Frequently Asked Questions," http://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf (last visited Apr. 1, 2014).

[13] 5 U.S.C. § 601(4).

[14] Independent Sector, The New Nonprofit Almanac & Desk Reference (2002).

[15] 5 U.S.C. § 601(5).

[16] U.S. Census Bureau, Statistical Abstract of the United States: 2006, Section 8, page 272, Table 415.

[17] We assume that the villages, school districts, and special districts are small, and total 48,558. *See* U.S. Census Bureau, Statistical Abstract of the United States: 2006, section 8, page 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

9. Small entities potentially affected by the proposals herein include eligible schools and libraries and the eligible service providers offering them discounted services.[18]

10. *Schools and Libraries*. As noted, "small entity" includes non-profit and small government entities. Under the schools and libraries universal service support mechanism, which provides support for elementary and secondary schools and libraries, an elementary school is generally "a non-profit institutional day or residential school that provides elementary education, as determined under state law."[19] A secondary school is generally defined as "a non-profit institutional day or residential school that provides secondary education, as determined under state law," and not offering education beyond grade 12.[20] For-profit schools and libraries, and schools and libraries with endowments in excess of $50,000,000, are not eligible to receive discounts under the program, nor are libraries whose budgets are not completely separate from any schools.[21] Certain other statutory definitions apply as well.[22] The SBA has defined for-profit, elementary and secondary schools and libraries having $6 million or less in annual receipts as small entities.[23] In funding year 2007, approximately 105,500 schools and 10,950 libraries received funding under the schools and libraries universal service mechanism. Although we are unable to estimate with precision the number of these entities that would qualify as small entities under SBA's size standard, we estimate that fewer than 105,500 schools and 10,950 libraries might be affected annually by our action, under current operation of the program.

11. *Telecommunications Service Providers*. First, neither the Commission nor the SBA has developed a size standard for small incumbent local exchange services. The closest size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[24] According to Commission data, 1,307 incumbent carriers reported that they were engaged in the provision of local exchange services.[25] Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.[26] Thus, under this category and associated small business size standard, we estimate that the majority of entities are small. We have included small incumbent local exchange carriers in this RFA analysis. 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."[27] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not "national" in scope.[28] We have therefore included small incumbent carriers in this RFA analysis,

[18] 47 C.F.R. §§ 54.501-54.502, 54.504.

[19] 47 C.F.R. § 54.500(c).

[20] 47 C.F.R. § 54.500(k).

[21] 47 C.F.R. § 54.501.

[22] *Id.*

[23] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) codes 611110 and 519120 (NAICS code 519120 was previously 514120).

[24] 13 C.F.R. § 121.201, NAICS code 517110.

[25] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, "Trends in Telephone Service" at Table 5.3, Page 5-5 (September 2010) (*2010 Trends Report*) (using data that is current as of Oct. 13, 2008).

[26] *Id.*

[27] 5 U.S.C. § 601(3).

[28] *See* Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (dated 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." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b).

although we emphasize that this RFA action has no effect on the Commission's analyses and determinations in other, non-RFA contexts.

12. Second, neither the Commission nor the SBA has developed a definition of small entities specifically applicable to providers of interexchange services (IXCs). The closest applicable definition under the SBA rules is for wired telecommunications carriers.[29] This provides that a wired telecommunications carrier is a small entity if it employs no more than 1,500 employees.[30] According to the Commission's 2010 Trends Report, 359 companies reported that they were engaged in the provision of interexchange services.[31] Of these 300 IXCs, an estimated 317 have 1,500 or few employees and 42 have more than 1,500 employees.[32] Consequently, the Commission estimates that most providers of interexchange services are small businesses.

13. Third, neither the Commission nor the SBA has developed a definition of small entities specifically applicable to competitive access services providers (CAPs). The closest applicable definition under the SBA rules is for wired telecommunications carriers.[33] This provides that a wired telecommunications carrier is a small entity if it employs no more than 1,500 employees.[34] According to the 2010 Trends Report, 1,442 CAPs and competitive local exchange carriers (competitive LECs) reported that they were engaged in the provision of competitive local exchange services.[35] Of these 1,442 CAPs and competitive LECs, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.[36] Consequently, the Commission estimates that most providers of competitive exchange services are small businesses.

14. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.[37] Prior to that time, such firms were within the now-superseded categories of "Paging" and "Cellular and Other Wireless Telecommunications."[38] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.[39] Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the category of Paging, data for 2002 show that there were 807 firms that operated for the entire year.[40] Of this total, 804 firms had employment of 999 or fewer employees, and three firms had

[29] 13 C.F.R. § 121.201, NAICS code 517110.

[30] *Id.*

[31] *2010 Trends Report*, Table 5.3, page 5-5.

[32] *Id.*

[33] 13 C.F.R. § 121.201, NAICS code 517110.

[34] *Id.*

[35] *2010 Trends Report*, Table 5.3, page 5-5.

[36] *Id.*

[37] U.S. Census Bureau, 2007 NAICS Definitions, "517210 Wireless Telecommunications Categories (Except Satellite)", http://www.census.gov/naics/2007/def/ND517210.HTM#N517210.

[38] U.S. Census Bureau, 2002 NAICS Definitions, "517211 Paging"; http://www.census.gov/epcd/naics02/def/NDEF517.HTM; U.S. Census Bureau, 2002 NAICS Definitions, "517212 Cellular and Other Wireless Telecommunications"; http://www.census.gov/epcd/naics02/def/NDEF517.HTM.

[39] 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

[40] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517211 (issued Nov. 2005).

employment of 1,000 employees or more.[41] For the category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year.[42] Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.[43] Thus, we estimate that the majority of wireless firms are small.

15. 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).[44] Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.[45] According to the 2010 Trends Report, 413 carriers reported that they were engaged in wireless telephony.[46] Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.[47] We have estimated that 261 of these are small under the SBA small business size standard.

16. *Common Carrier Paging*. As noted, since 2007 the Census Bureau has placed paging providers within the broad economic census category of Wireless Telecommunications Carriers (except Satellite).[48] Prior to that time, such firms were within the now-superseded category of "Paging."[49] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.[50] Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior category and associated data. The data for 2002 show that there were 807 firms that operated for the entire year.[51] Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.[52] Thus, we estimate that the majority of paging firms are small.

17. In addition, in the *Paging Second Report and Order*, the Commission adopted a size standard for "small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[53] A small business is an entity that, together with its affiliates

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[41] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[42] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517212 (issued Nov. 2005).

[43] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[44] 13 C.F.R. § 121.201, NAICS code 517210.

[45] *Id*.

[46] *2010 Trends Report* at Table 5.3, page 5-5.

[47] *Id*.

[48] U.S. Census Bureau, 2007 NAICS Definitions, "517210 Wireless Telecommunications Categories (Except Satellite)", http://www.census.gov/naics/2007/def/ND517210.HTM#N517210.

[49] U.S. Census Bureau, 2002 NAICS Definitions, "517211 Paging", http://www.census.gov/epcd/naics02/def/NDEF517.HTM.

[50] 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

[51] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517211 (issued Nov. 2005).

[52] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[53] *Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems et al.*, WT Docket No. 96-18 et al., Second Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 2732, 2811-12, paras. 178-81 (1997) (*Paging Second Report and Order*); *Revision of Part 22 and Part 90 of the*

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and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[54] The SBA has approved this definition.[55] An initial auction of Metropolitan Economic Area ("MEA") licenses was conducted in the year 2000. Of the 2,499 licenses auctioned, 985 were sold.[56] Fifty-seven companies claiming small business status won 440 licenses.[57] A subsequent auction of MEA and Economic Area ("EA") licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[58] One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[59]

18. Currently, there are approximately 74,000 Common Carrier Paging licenses. According to the most recent Trends in Telephone Service, 291 carriers reported that they were engaged in the provision of "paging and messaging" services.[60] Of these, an estimated 289 have 1,500 or fewer employees and two have more than 1,500 employees.[61] We estimate that the majority of common carrier paging providers would qualify as small entities under the SBA definition.

19. *Internet Service Providers*. The 2007 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 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,[62] which has an SBA small business size standard of 1,500 or fewer employees.[63] The latter are within the category of All Other Telecommunications,[64] which has a size standard of annual receipts of $25 million or less.[65] The most current Census Bureau data for all such firms, however, are the 2002 data for the previous census category called Internet Service Providers.[66] That category had a small business size standard of $21

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*Commission's Rules to Facilitate Future Development of Paging Systems et al.*, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085-88, paras. 98-107 (1999).

[54] *Paging Second Report and Order*, 12 FCC Rcd at 2811, para. 179.

[55] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (dated Dec. 2, 1998).

[56] *See 929 and 931 MHz Paging Auction Closes*, Public Notice, 15 FCC Rcd 4858 (WTB 2000).

[57] *See id.*

[58] *See Lower and Upper Paging Bands Auction Closes*, Public Notice, 16 FCC Rcd 21821 (WTB 2001).

[59] *See Lower and Upper Paging Bands Auction Closes*, Public Notice, 18 FCC Rcd 11154 (WTB 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

[60] *2010 Trends Report* at Table 5.3, page 5-5.

[61] *Id*.

[62] U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers", http://www.census.gov/naics/2007/def/ND517110.HTM#N517110.

[63] 13 C.F.R. § 121.201, NAICS code 517110 (updated for inflation in 2008).

[64] U.S. Census Bureau, 2007 NAICS Definitions, "517919 All Other Telecommunications", http://www.census.gov/naics/2007/def/ND517919.HTM#N517919.

[65] 13 C.F.R. § 121.201, NAICS code 517919 (updated for inflation in 2008).

[66] U.S. Census Bureau, "2002 NAICS Definitions: 518111 Internet Service Providers", http://www.census.gov/epcd/naics02/def/NDEF518.HTM.

million or less in annual receipts, which was revised in late 2005 to $23 million. The 2002 data show that there were 2,529 such firms that operated for the entire year.[67] Of those, 2,437 firms had annual receipts of under $10 million, and an additional 47 firms had receipts of between $10 million and $24,999,999.[68] Consequently, we estimate that the majority of ISP firms are small entities.

20. *Vendors of Internal Connections: Telephone Apparatus Manufacturing*. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways."[69] The SBA has developed a small business size standard for Telephone Apparatus Manufacturing, which is: all such firms having 1,000 or fewer employees.[70] According to Census Bureau data for 2002, there were a total of 518 establishments in this category that operated for the entire year.[71] Of this total, 511 had employment of under 1,000, and an additional seven had employment of 1,000 to 2,499.[72] Thus, under this size standard, the majority of firms can be considered small.

21. *Vendors of Internal Connections: Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing*. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment."[73] The SBA has developed a small business size standard for firms in this category, which is: all such firms having 750 or fewer employees.[74] According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.[75] Of this total, 1,010 had employment of

[67] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4, NAICS code 518111 (issued Nov. 2005).

[68] An additional 45 firms had receipts of $25 million or more.

[69] U.S. Census Bureau, 2002 NAICS Definitions, "334210 Telephone Apparatus Manufacturing", http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342.

[70] 13 C.F.R. § 121.201, NAICS code 334210.

[71] U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334210 (rel. May 26, 2005), http://factfinder.census.gov. The number of "establishments" is a less helpful indicator of small business prevalence in this context than would be the number of "firms" or "companies," because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks out data for firms or companies only to give the total number of such entities for 2002, which were 450.

[72] *Id*. An additional 4 establishments had employment of 2,500 or more.

[73] U.S. Census Bureau, 2007 NAICS Definitions, "334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing", http://www.census.gov/naics/2007/def/ND334220.HTM#N334220.

[74] 13 C.F.R. § 121.201, NAICS code 334220.

[75] U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (rel. May 26, 2005); http://factfinder.census.gov. The number of "establishments" is a less helpful indicator of small business prevalence in this context than would be the number of "firms" or "companies," because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different

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under 500, and an additional 13 had employment of 500 to 999.[76] Thus, under this size standard, the majority of firms can be considered small.

22. *Vendors of Internal Connections: Other Communications Equipment Manufacturing*. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment)."[77] The SBA has developed a small business size standard for Other Communications Equipment Manufacturing, which is having 750 or fewer employees.[78] According to Census Bureau data for 2002, there were a total of 503 establishments in this category that operated for the entire year.[79] Of this total, 493 had employment of under 500, and an additional 7 had employment of 500 to 999.[80] Thus, under this size standard, the majority of firms can be considered small.

### D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

23. Several of our rule changes will result in additional recordkeeping requirements for small entities. For all of those rule changes, we have determined that the benefit the rule change will bring for the program outweighs the burden of the increased recordkeeping requirement. Other rule changes decrease recordkeeping requirements for small entities.

#### 1. Increase in Projected Reporting, Recordkeeping and Other Compliance Requirements

24. *Compliance burdens.* All of the rules we implement impose some burden on small entities by requiring them to become familiar with the new rule to comply with it. For many new rules, such as those codifying invoicing deadlines, increasing price transparency, phasing down support for voice services, eliminating support for telephone features, and reducing the maximum discount rate for internal connections, the burden of becoming familiar with the new rule in order to comply with it is the only burden the rule imposes.

25. *Connectivity metrics.* The metrics we adopt[81] will require applicants to provide data on connectivity, demand costs and LAN/WLAN capacity. The benefit collection of this data will provide us by giving us a better understanding of how the E-rate program is accomplishing its goals outweighs the burden it will impose on small entities.

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establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks out data for firms or companies only to give the total number of such entities for 2002, which were 929.

[76] *Id*. An additional 18 establishments had employment of 1,000 or more.

[77] U.S. Census Bureau, 2002 NAICS Definitions, "334290 Other Communications Equipment Manufacturing", http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342.

[78] 13 C.F.R. § 121.201, NAICS code 334290.

[79] U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334290 (rel. May 26, 2005), http://factfinder.census.gov. The number of "establishments" is a less helpful indicator of small business prevalence in this context than would be the number of "firms" or "companies," because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks out data for firms or companies only to give the total number of such entities for 2002, which were 471.

[80] *Id*. An additional 3 establishments had employment of 1,000 or more.

[81] *See* section II.A.

26. *Internal connections funding.* Our rule change to provide more funding for internal connections will increase recordkeeping burdens on small entities who previously did not apply for funding for internal connections because funding was not available to them. The benefit of receiving funding for internal connections clearly outweighs the burden on applying for this funding.

27. *Preferred master contracts.* Our rule change to allow the Bureau to designate preferred master contracts that applicants would be required to include in their bid evaluations even if the master contract was not submitted as a bid would increase recordkeeping requirements on small entities because it would require many small E-rate applicants to consider an additional bid in their evaluations. The significant savings the Fund and applicants would realize from including preferred master contracts in bid evaluations justifies this added burden.

28. *Price transparency.* We allow applicants to opt out of public disclosure by USAC of their E-rate pricing data if such disclosure would violate a state law, local rule, or an existing long-term contract by certifying and citing to the specific statute, rule or other restriction barring publication of pricing data. Making this certification will increase recordkeeping requirements for those applicants who wish to opt out, but allowing the certification is necessary to ensure consistency between E-rate rules and state and local laws.

29. *Determining rurality for school districts.* Requiring applicants to determine whether a majority of their schools are in rural areas increases recordkeeping requirements. The benefit to rural applicants of receiving an additional discount justifies this additional burden.

30. *Document retention.* Extending the retention period from five to 10 years after the latter of the last day of the applicable funding year, or the last day of delivery of services for that funding year increases recordkeeping requirements and costs for E-rate recipients and service providers. Our interest in combatting waste, fraud and abuse by litigating matters under the False Claims Act, which can involve conduct that relates back substantially more than five years, justifies this additional burden.

31. *Electronic filing.* Although filing electronically is easier than filing on paper for most applicants, we recognize that requiring electronic filing may impose additional burdens for applicants who are unfamiliar with the electronic filing process. Nonetheless, the efficiencies for USAC that requiring electronic filing creates outweigh the burden on applicants.

32. *Maximum term for multi-year contracts*. Our requirement that contracts for E-rate supported services not exceed five years, which an exception permitting contracts for deployment of new fiber to schools or libraries to not exceed ten years, could increase reporting requirements for some applicants by requiring them to negotiate contracts more frequently than they otherwise would. Our interest in promoting cost-effective purchasing justifies this additional burden.

33. *Requiring filing of appeals with USAC*. Requiring applicants to first file appeals with USAC before appealing decision to the Commission could increase recordkeeping requirements by requiring applicants who planned to appeal directly to the Commission to file an additional appeal before doing so. The benefit of reducing the Commission's E-rate appeal backlog outweighs this burden.

34. *Changes to the ESL*. We recognize that the changes to focus the category two Eligible Services List (ESL) on broadband may require applicants to cost allocate newly-ineligible services. E-rate recipients have always been required to cost allocate ineligible components.[82] In many instances, cost allocation should not be difficult because these services appear on separate line items on bills. Even when ineligible services do not appear as separate line items on bills, the savings to the program from these changes to the ESL outweighs the administrative burden of cost allocation for program participants.

[82] *See generally* 47 C.F.R. § 54.504(e).

### 2. Decrease in Projected Reporting, Recordkeeping and Other Compliance Requirements

35. *Focusing support on broadband.* Limiting internal connections support to routers, switches, wireless access points, internal cabling, wireless controller systems, data protection services, and the software supporting each of these components used to distribute high-speed broadband throughout school buildings and libraries will decrease recordkeeping requirements for small entities because they will no longer go through the application process for services that have been made ineligible.

36. *Simplified application process for multi-year contracts.* Our new procedure for funding commitments for multi-year contracts for priority one services that is no longer than five years[83] will alleviate reporting burdens on small entities because, in many circumstances, applicants will only be required to submit an FCC Form 471 for the first year of a multi-year contract. For subsequent years, applicants will be permitted to use a streamlined application process.

37. *Eliminating technology plan requirements*. We eliminate the technology plan requirement for applicants seeking category two services, which will decrease recordkeeping requirements.

38. *Exempting certain low-dollar purchases from competitive bidding rules.* The exemption to our competitive bidding rules that allows E-rate applicants to purchase certain business-class Internet access reduces recordkeeping requirements related to the competitive bidding process. Although the requirement that applicants certify that they have purchased services that are eligible for an exemption imposes a minimal recordkeeping requirement, the overall effect of the rule change is a reduction in recordkeeping requirements.

39. *Preferred master contracts.* We also permit applicants to take services on a preferred master contract designated by the Bureau without filing an FCC Form 470. This reduces the burdens associated with filing an FCC Form 470 and conducting a bid evaluation.

40. *District-wide discount rates.* The requirement that applicants use a district-wide data to determine their discount rates[84] will reduce reporting requirements because districts will no longer have to perform a discount rate calculation for each school within a district.

41. *Invoicing.* Applicants who submit a Billed Entity Application for Reimbursement (BEAR) Form may now receive reimbursement directly from USAC, rather than having the service provider serve as an intermediary. This alleviates reporting requirements on the service provider.

42. *Plain language review.* The plain language review of USAC's standard forms that we order make it easier for small entities to comply with our rules by reducing applicant confusion and ensuring that entities have the information necessary to comply with our rules.

### E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

43. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small

[83] *See* section V.A.

[84] *See* section V.B.1.

entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."[85]

44. This rulemaking could impose minimal additional burdens on small entities. We considered alternatives to the rulemaking changes that increase projected reporting, recordkeeping and other compliance requirements for small entities.

#### 1. Alternatives Permitted

45. *Electronic filing.* To accommodate applicants who have insufficient connectivity or other administrative resources to file electronically with USAC, we permit an exception to our electronic filing requirement that allows those applicants to file applicants and other documents with USAC using paper.

46. *Document retention.* We encourage applicants to take advantage of electronic storage of documents to mitigate the additional expense our increase of the document retention requirement from five to 10 years imposes.

#### 2. Alternatives Considered and Rejected

47. *Connectivity metrics.* The best source for obtain the data we need for connectivity metrics is applicants. Although we could obtain this data from service providers, it is less burdensome for an applicant to provide connectivity data for itself than it would be for a service provider to furnish it for all of its customers who receive E-rate support.

### F. Report to Congress

48. The Commission will send a copy of this Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the SBREFA.[86] In addition, the Commission will send a copy of the Report and Order, including the FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Report and Order and the FRFA (or summaries thereof) will also be published in the Federal Register.[87]

[85] 5 U.S.C. § 603(c)(1)-(c)(4).

[86] *See* 5 U.S.C. § 801(a)(1)(A).

[87] *See* 5 U.S.C. § 604(b).

## APPENDIX G

### Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Further Notice of Proposed Rulemaking (FNPRM). Written comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the FNPRM. The Commission will send a copy of the FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[2] In addition, the FNPRM and IRFA (or summaries thereof) will be published in the Federal Register.[3]

2. The Commission is required by section 254 of the Communications Act of 1934, as amended, to promulgate rules to implement the universal service provisions of section 254.[4] On May 8, 1997, the Commission adopted rules to reform its system of universal service support mechanisms so that universal service is preserved and advanced as markets move toward competition.[5] Specifically, under the schools and libraries universal service support mechanism, also known as the E-rate program, eligible schools, libraries, and consortia that include eligible schools and libraries may receive discounts for eligible telecommunications services, Internet access, and internal connections.[6]

#### A. Need for, and Objectives of, the Proposed Rules

3. This FNPRM is a part of the Commission's continual efforts to improve the E-rate program. In the accompanying Report and Order, we adopt the goals for the E-rate program (1) ensure affordable access to high-speed broadband sufficient to support digital learning in schools and robust connectivity for all libraries, (2) maximize the cost-effectiveness of spending for E-rate supported purchases, and (3) make the E-rate application process and other E-rate processes fast, simple and efficient.

4. The rules we propose in this FNPRM will enable us to meet these goals. Specifically, we propose to require that multi-year contracts be competitively bid at least every five years, require applicants to use state-audited National School Lunch Plan (NSLP) data when calculating discount rates and require consortia to calculate discount rates using a weighted average of the discount rates of all consortium members.

#### B. Legal Basis

5. The legal basis for the FNPRM is contained in sections 1 through 4, 201-205, 254, 303(r), and 403 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. §§ 151 through 154, 201 through 205, 254, 303(r), and 403.

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[1] 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] *See* 5 U.S.C. § 603(a).

[3] *See id.*

[4] *See generally* 47 U.S.C. § 254.

[5] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776 (1997) (*Universal Service First Report and Order*).

[6] 47 C.F.R. §§ 54.502, 54.503.

### C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

6. We have described in detail in the Final Regulatory Flexibility Analysis in this proceeding, supra, the categories of entities that may be directly affected by our proposals. For this Initial Regulatory Flexibility Analysis, we hereby incorporate those entity descriptions by reference.[7]

### D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

7. Several proposals under consideration in the FNPRM may, if adopted, result in additional recordkeeping requirements for small entities, but other proposals will reduce recordkeeping requirements for small entities.

#### 1. Proposed Rules that Lessen Reporting Burdens

8. *Efficient use of NSLP data.* Our proposal that E-rate applicants be required to use state-audited National School Lunch Plan (NSLP) data to determine their E-rate discount rates will reduce administrative burdens on applicants because they will no longer be permitted to use federally-approved alternatives such as surveys to determine discount rates.

#### 2. Proposed Rules that Increase Reporting Burdens

9. *Multi-year contracts.* Our proposal to require certain contracts to be open to competitive bidding at least once in every five-year period could increase recordkeeping requirements by requiring applicants to solicit and evaluate bids for E-rate support more frequently than they would without the rule. Overall, the benefit the Fund will realize in ensuring that applicants take advantage of falling market prices outweighs the burden on this requirement.

10. *Consortium discount rates.* Our proposal to require consortia to calculate discount rates using a weighted average of all consortium members could increase recordkeeping requirements by making the discount rate formula more complex for certain consortia. The benefit of encouraging consortia participation by ensuring that consortium members receive discount rates closer to their individual discount rates outweighs this burden.

### E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

11. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."[8]

12. We proposed alternatives and sought comment on alternatives to our proposals that would be less burdensome to small entities. For example, we seek comment extending the duration between re-bidding on contracts that would index terms to market prices and bandwidths and contracts for fiber builds.[9] Additionally, we seek comment on an alternative discount calculation that could reduce recordkeeping requirements for small applicants.[10]

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[7] *See supra* Appendix F.

[8] 5 U.S.C. § 603(c)(1)-(c)(4).

[9] *See supra* section VIII.B.

[10] *See supra* section VIII.D.1.

13. As noted, the proposals and options being introduced for comment will not have a significant economic impact on small entities under the E-rate program. Indeed, the proposals and options will benefit small entities by simplifying processes, ensuring access to broadband, maximizing cost-effectiveness and maximizing efficiency. We nonetheless invite commenters, in responding to the questions posed and tentative conclusions in the FNPRM, to discuss any economic impact that such changes may have on small entities, and possible alternatives.

**F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules**

14. None.

15. IT IS ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

# STATEMENT OF
# CHAIRMAN TOM WHEELER

Re: *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184.

When I stepped to the podium at the Library of Congress on Digital Learning Day earlier this year, I made one point very clear: E-Rate modernization is a BIG deal. The challenge has been clear to everybody: we needed to move from a program that was designed for the 20th century, towards a program that is gives our educators the ability to take advantage of 21st century technologies and learning strategies, and allows our libraries to better serve their patrons and communities.

Today is a watershed moment in the history of the program, because we take the critical next step in the E-rate modernization process. And we are doing it the right way. We are targeting already available funds to meet the greatest current needs, we are getting as much as we can out of every E-rate dollar, and we are formally and expeditiously investigating the appropriate funding level for this program, based upon the steps we take today. That is why this item is a win for students, it's a win for educators, and it's a win for ratepayers.

Today's item begins the process of closing the Wi-Fi gap. The digital teaching strategies that educators around the country want to employ require wireless connectivity directly to the student, allowing students to use their laptops for interactive and individualized learning. And library patrons need Wi-Fi connectivity to complete their education, jumpstart employment and entrepreneurship opportunities, and apply for government services, among other things. Unfortunately, in recent years, E-rate supported requests for Wi-Fi in less than five percent of schools and only 1 percent of libraries, and last year, no E-rate money at all was available for Wi-Fi services or other internal connections. In this regard, the program has let students, teachers and local communities down.

We're changing that by specifying a $1 billion annual funding target for Wi-Fi to meet the needs of all schools and libraries while continuing to ensure the availability of funding for broadband connectivity to the building. Importantly, we are doing so in a manner that is consistent with the bedrock principle of prioritizing funding for those who need it most while ensuring a much more equitable distribution of funding among all eligible applicants. This Report and Order targets far more support for Wi-Fi in rural areas than has ever been available in the history of the program. Closing the Wi-Fi gap means that millions more library patrons and students across the country will have access to opportunities that were previously denied. That's a big deal.

Today's item begins a multi-year transition away from 20th century technologies to enable the support of 21st century connectivity. Doing so requires us to make some hard choices, but I am confident that we all win when we place a priority on high-capacity broadband in schools and libraries. Not broadband for the sake of broadband, but broadband for what it enables.

The Report and Order takes a series of steps to maximize the cost-effectiveness of all E-rate spending through greater pricing transparency, encouraging consortia and bulk purchasing, and better enforcement of existing rules. The changes we adopt today will help the beneficiaries of this program—our nation's schools and libraries—by providing them with better information that will result in better prices. Every dollar saved for one applicant is another dollar made available for another applicant. That is a win for schools, libraries and the rate payors who make this program possible.

Finally, the Report and Order streamlines the program, making it faster, simpler, and more efficient. For E-Rate to work, it has to be workable for schools and libraries.

To anyone paying attention—and there are many of you—there has been a rather spirited debate about this item. That debate doesn't end today. But we owe it to our schools and libraries to take the first step now so that billions in available Wi-Fi funds can begin to flow in the next funding year while we continue the discussion.

We all share a common desire to improve the learning opportunities for students and the lives of local citizens who depend on their library to access the Internet. But there are certainly some differences of opinion around the details. And that's good. It's healthy. Some have suggested we should not move forward with an order that does not include a substantial increase in E-rate cap. I have always said the responsible approach is to begin with administrative and structural reform and smarter use of the resources we have, while we continue our review of the long-term program needs. By doing that today, we're going to help 10 million kids next year alone. 10 million kids.

Others say we shouldn't do any such funding review at all, and would take any new funding off the table permanently. I fully understand and appreciate that we are stewards of the Universal Service Fund, and that we have a fiduciary obligation to those who pay into USF –consumers. That's why this Report and Order includes such an emphasis on maximizing the cost-effectiveness of E-rate spending. But we also have a direct mandate from Congress to keep this program up to date. No responsible business would run on an IT budget last reviewed in 1998. Why should we treat the IT budgets of our schools and our libraries with any less concern? As I see it, we are abdicating our responsibility if we fail to engage on the budget question. I don't know the answer yet, but I reject the suggestion that we shouldn't even be asking the question.

The good news is that thanks to the efforts of Commission staff and many of you in the room and watching online who have worked so hard and so closely with us over the past months, we know a lot more today than we did when I started as Chairman. But we still have some work to do. That is why this item includes a Further Notice asking some additional questions that will enable us to tackle the question of sizing the long-term funding needs of the program. My preferred approach has always been to modernize the program, and then assess the long-term funding of the program. It would make no sense to simply add more money to a program that was still set in the 20th century. The changes we adopt today give us the foundation to thoroughly understand and analyze the long term funding needs of the program, and ensure that the program remains robust for years to come.

Technology has changed. The needs of students and library patrons have changed. And now, E-rate has changed. I thank all of you who have engaged with us to date and ask that you continue to work with us as we continue down the E-rate modernization path.

## STATEMENT OF COMMISSIONER MIGNON L. CLYBURN

*Re: Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184.

While perfection may be the enemy of the good, some may question whether this item rises to that level. It certainly is not perfect, and there are key aspects I would have approached differently, but the Report and Order makes a number of improvements that streamline and modernize the E-rate program, and, at the end of the day, that is good.

To say that there has been a lively debate leading up today's meeting is an understatement but I fear some may have lost sight of the forest for the trees. If my sister, a middle school teacher, read only the press coverage of the last few weeks, I am not sure that she would have a full appreciation of why we are here today. For what gets lost in all the talk about numbers, per square foot budgets, and lists of services – some of which may require a dictionary to decipher – is how this item could improve my sister's ability to teach her students at Dent Middle School or how our local library could better serve the community.

Setting aside all the rhetoric, this item is fundamentally about the educational forest surrounding our children and their communities. It is about ensuring that our youth have the tools needed to be the leaders of tomorrow; it is about providing our country with the means to be an enabler of excellence; it is about breaking down barriers of poverty and demographic differences through our schools and libraries by making sure they have access to world-class broadband and WiFi.

This is why we have E-rate. And because of those visionaries in Congress, including Senators Rockefeller and Markey, and former Senator Snowe, many of our schools and libraries, particularly in rural and high poverty areas have the world-class technology they need to succeed.

For me and so many others, broadband is the greatest equalizer of our time. It has the power to break down decades of barriers and provide children from Moncks Corner, South Carolina, to Tysons Corner, Virginia, with access to many of the same world-class digital learning and tools they will need to thrive.

But the fact is that the schools and libraries in Moncks Corner do not have the same means or resources as those in Tysons Corner, and, absent the FCC's E-rate program, schools and libraries in rural and higher poverty areas likely would not even begin to have the means to purchase high capacity robust broadband to and within their learning centers. I have seen and spoken about how robust connectivity and one-to-one initiatives can transform communities from Loris Elementary in South Carolina, to Muir Middle School in South Central Los Angeles, and this is why we are here.

We are here because we would be derelict if we leave our most vulnerable children and communities without the infrastructure they need to be successful. And while today's item does not make all of the changes necessary to achieve each and every goal, it does make noteworthy steps in the right direction.

I noted from the start that, in my opinion, this item is not perfect. At this juncture, I wish to highlight what is good about the Report and Order.

First, we take a significant step in addressing the concerns regarding affordable access to internal connections or WiFi. Although many schools and libraries have sufficient capacity to the building, some cannot take full advantage of that capacity because they do not have the resources to purchase internal WiFi connections.

The item's approach to closing this gap is not necessarily the one I would have taken, and I must admit I have reservations about a per-student or a per-square-foot metric to allocate support. I would have preferred a narrower framework grounded on the needs of the community that takes into account the gaps that exist in the highest poverty centers. But I appreciate the Chairman's willingness to address those concerns, by increasing the per square foot allocation for libraries to $2.30, raising the school and library floor, and adjusting the discount for Category Two services to 85%, for the highest poverty schools. These changes make me more comfortable with this approach as an initial step to close the gaps.

Second, the item phases out or eliminates support for certain services. This is a step in the right direction because we must continue to update services eligible for support and focus foremost on broadband and connectivity. E-rate funds are finite so funding should be directed only to those services that are enablers of a robust broadband infrastructure.

But when we make changes, no matter how sound, there are impacts to stakeholders and I was concerned about the effect these changes would have on our most vulnerable schools and libraries, which serve high poverty areas where buildings are often old and budgets are almost always tight. I wondered if they would they have enough time to adjust because abrupt, significant changes could bring them disproportionate harm and result in districts cutting teachers or other essential services.

Staff's projections indicate that, over the next two years, the new funding for WiFi should more than offset the reductions in voice and legacy services for these schools and libraries. The WiFi support in Category Two will largely be new funding for these learning centers and will enable the purchase of high quality WiFi on par with our country's most wealthy school districts. After two years, the Bureau will report on the impact of the phase down of voice services to help ensure that these projections are accurate.

Third, the Report and Order significantly increases transparency, which is good, and will not only help the FCC but also schools and libraries. Learning centers will be able to compare their prices to what their neighbors receive and question if and why their rates, differ. This will provide us with useful data and help us to monitor the program as we make sure that each dollar going to E-rate is maximized.

Fourth, the item takes initial steps to streamline and reduce administrative burdens and leaves room for us to evaluate and introduce additional steps.

But the promise of robust WiFi will only become a reality if schools and libraries have adequate connectivity to their buildings. In the beginning, I must admit I was concerned that WiFi connectivity could negatively impact the Priority One (now Category One) funding base, but the item makes clear that the Category Two funding for WiFi will not be prioritized over the funding for Category One support.

However, I do not believe this change alone is quite enough. The staff analysis shared with my office indicates that only 20 percent of our nation's libraries have fiber. And, while I will admit that we may need more data, and perhaps not all libraries need fiber, I certainly believe that that more than 20 percent of our libraries are in need of such capacity. The number of schools that have fiber is significantly higher but I am afraid even those numbers are not ideal.

So our work is not done and we will continue to contemplate how to close these gaps and ensure that all schools and libraries have affordable access to the connectivity to and within their buildings.

Now I end as I began asking rhetorically, why are we here? We are here because there are a number of positive directives in this Report and Order that will help our children and our communities, and, as Benjamin Franklin said, "An investment in knowledge pays the best interest."

So, thank you, Mr. Chairman, for working with my office to address our key concerns. Thank you, Commissioner Rosenworcel, for your passionate advocacy that goes back to your days as a staffer on the Hill. And, many thanks, of course, goes to the incredibly dedicated and overworked staff of the Wireline Competition Bureau, the Office of Managing Director, the Office of Strategic Planning & Policy Analysis. There are too many to name but I wish to thank Jonathan Chambers, Jon Wilkins, Trent Harkrader, Lisa Hone, my law clerks, Adrian Peguese and Laura Arcadipane, and last but certainly not least, to my fatigued but ever dedicated wireline adviser, Rebekah Goodheart, I thank you for your advice, wise counsel, and dedication to this agency's mission and for the people we serve.

# STATEMENT OF
# COMMISSIONER JESSICA ROSENWORCEL
# APPROVING IN PART, CONCURRING IN PART

Re: *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184.

Today we start the process of rebooting, reinvigorating, and recharging the E-Rate program. E-Rate is the nation's largest education technology program. It has a proud history and if we do our part here at the Commission, I think it can have an even brighter future.

But before heading boldly into the future, let me take a moment to look back. I want to talk about back when I was in school.

When I went to school, there was only the blackboard. This was our common medium, our shared platform for knowledge. Introducing new ideas involved no graphics, gameification, or video. Just the swipe of an eraser and some dusty chalk.

There was also the mimeograph or ditto machine. Tests and math sets were printed out in blotchy purple ink. That ink had a smell that even today I would recognize in an instant.

There was also the great heft of biology textbooks and the stubby guides covering grammar. They weighed down your backpack and cluttered your locker. And beyond books, multimedia just meant grainy filmstrips with history reenactments that had really lousy production values.

So fast forward to the here and now. Clapping together erasers is a lost art that my school-aged children—blissfully—will never know. That purple ink has been replaced by the infinite capacity of digital distribution. And texts are being remade and rethought as tablets change the ways we access all forms of media and information—in schools, in libraries, and beyond.

In short, broadband and connected devices are changing every aspect of our lives. Because we live in an age of always-on connectivity. Increased broadband capacity and decreased costs of cloud computing are changing the ways we access and create content. So many of our social spaces are now virtual. And mobility means we can take the content with us wherever we go.

We are kidding ourselves if we believe that all of this change stops at the school doors. It does not. So if we are smart, we will let it in and wrestle with its real potential—and do good things. Because doing anything else will not prepare our students for the world they live in. Already 50 percent of jobs today require some digital skills. By the end of the decade, that number is going to be 77 percent. We do our students no favors when we strand schools, classrooms, and libraries in the industrial era. After all, we live in the digital age.

So we need an E-Rate program designed for the digital age. We need E-Rate 2.0.

The E-Rate program was launched 18 years ago. It was the brainchild of Senator Jay Rockefeller, Senator Olympia Snowe, and then Congressman, now Senator Ed Markey. Their work was visionary. Because at a time when Internet access meant no more than dial-up, they saw the future. They sought to connect all of our schools and libraries to the Internet. They understood that every student, no matter who they are or where they go to school, should have access to the bounty of the information age. They dreamed up the E-Rate and in the Telecommunications Act of 1996 they made it the law of the land.

Thanks to their good work, we now have more than 95 percent of classrooms in this country connected to the Internet. But the challenge is no longer connection, it's capacity. Because too many of our schools and libraries that rely on E-Rate—often in low-income and rural communities—access the Internet at speeds as low as 3 Megabits. That is lower than the broadband speed of the average American home, but with 200 times as many users! Think about what that means. It means too many schools do not have the capacity to offer high-definition streaming video. It means too many schools are unable to take advantage of the most innovative digital teaching tools. It means too many students are unable to develop the science, technology, engineering, and math—STEM—skills that are so essential to compete.

So how do we fix this? A year and a half ago I decided to get out of Washington and ask those on the frontlines in our nation's schools and libraries. I spoke with teachers, librarians, superintendents, school administrators, mayors, and state leaders from across the country—from Alaska to Arkansas, from Colorado to California, and countless places in between. Lots of different places, lots of different ways of doing things. But from every encounter the same message: E-Rate is essential. It can be the foundation for digital age opportunity, but needs a reboot for 21st century success. We need E-Rate 2.0.

To get there, I think we need to do three things. So here are the S's of E-Rate reform: speed, simplify, and spending smart. These are the criteria—and here are my thoughts on what we do today.

*First, speed*. If you are a school and want to run the most up-to-date educational software, you need high-speed, high-capacity broadband. To do this, we need goals. So today, I am pleased that we put them in place. In the near term, we want to have 100 Megabits per 1000 students to all of our schools. In the long term, we want to have 1 Gigabit per 1000 students to all of our schools. We also set targets for libraries that are on par with these goals.

I call these goals dream likely and then dream big. I think we can do it. And more than that, I think that if we adopt these capacity goals we will send a strong signal to educational markets. Because by making more bandwidth available at nationwide scale we can foster new opportunities for creative content, services, teaching tools, and devices—everywhere.

Plus, the spillover effect from bringing broadband to anchor institutions like schools and libraries is huge. Because simply bringing these kinds of speeds to schools makes it incrementally less expensive to deploy higher-speed broadband to the homes and businesses nearby.

Our Report and Order today recognizes that to meet these goals, we are going to have to do things differently. That means that the Commission needs to collect better data from each of our applicants about what capacity they have and what capacity they need. That way we can fine tune our efforts over time to achieve our goals.

Today we also recognize that we have moved from a world where a connected computer lab down the hall is nice-to-have to a world where high-speed broadband to the classroom is need-to-have. As a result—and thanks to the Chairman—a centerpiece of our effort here involves Wi-Fi. Over the next two years, we will test out a new way to distribute funding for internal connections to support Wi-Fi connectivity in classrooms and libraries. This will support more individual device usage and help set our schools up for a new era of possibilities with one-to-one device learning. So bringing more Wi-Fi to schools and libraries is a good thing. However, I am mindful that any efforts to make Wi-Fi more broadly available cannot come at the expense of E-Rate funding that keeps schools and libraries connected to basic broadband. So I thank my colleagues for agreeing with me that all requests for connectivity to schools and libraries under Priority 1 or Category 1 will be honored before Wi-Fi funding is made available. This is important.

*Second, simplify*. The E-Rate program is too complicated. This is a program that can be about blazing a path for broadband in the digital age. So why does it have such a long and messy paper trail? It has become too difficult and expensive for schools and libraries to navigate our process, especially in the low-income and rural communities that are most in need. That is just not right.

But today we do something about it. We take steps to reduce the bureaucracy associated with E-Rate. We put in place a streamlined application process for multiyear contracts, we speed review of consortia applications, and we eliminate unnecessary requirements. This is good.

*The last S—or two—is spending smart*. We need to spend our limited E-Rate dollars intelligently. We do that today by increasing transparency so that applicants can make better purchasing decisions. We also take steps to encourage cost-effective purchasing through consortia and bulk buying. In addition, we cut and phase-out support for outdated services like paging in order to refocus the program on broadband.

But spending smart needs to go beyond these steps. We need to raise the E-Rate cap. At a minimum, we need to own up to the fact that inflation has cut the purchasing power of this program. The

E-Rate program was sized at $2.25 billion in annual support sixteen years ago. That was when less than one percent of American households had Internet access at any speed above dial-up. That was when gas was a dollar a gallon. It was a long time ago. All across the government, we index important programs to inflation—from Social Security to Medicare to Veterans Educational Assistance. There is nothing radical about this. We do it because it makes good sense to keep inflation from arbitrarily cutting the purchasing power of programs that matter. We should do it for E-Rate, too—because between when the cap was put in place and some adjustments were made in 2010, that is roughly $1 billion in missing support every year.

I would have preferred to fix this gap here and now, instead of leaving it for a Further Notice of Proposed Rulemaking. So on this aspect of today's decision, I concur.

I hope that going forward we will have the courage to fix this. I hope going forward we will be bold. Because this is not just a matter of getting schools and libraries connected—it's a matter of our global competitiveness. The world is flat. Knowledge, jobs, and capital will migrate to places where workers have digital age skills, especially those in STEM fields. We can't expect to compete if we educate the next generation with a support system frozen in the age of dial-up.

The rest of the world recognizes this—and other nations are leading the way when it comes to bringing broadband to schools. In South Korea, 100 percent of schools are wired with high-speed broadband. In fact, with so much capacity, an effort is underway in South Korea to transition all students from traditional textbooks to digital readers by 2016. In Estonia, all schools are connected and there is a nationwide effort to teach students as young as seven years old how to write code. In Uruguay, nearly all primary and secondary schools have been connected and every primary student has access to a free laptop. In Thailand, the government has established a one tablet per child policy in an effort to reduce the education gap between the nation's urban and rural children. By the end of next year, the government will have distributed devices to 13 million school children. Kazakhstan, too, is exploring how broadband can bring educational opportunities to its most rural villages. Meanwhile, the governments of China and India are exploring ways to bring one-to-one device learning to students through large scale purchasing at low cost. The list goes on.

Of course, we can suggest that these countries are different than the United States. They have different cultures. They have different education systems. But we can still take from these examples that improving broadband capacity must be a national priority.

So we are at a crossroads. We can let other nations outspend us, out educate us, and out achieve us. Or we can be courageous and do something about it. We can choose a future where all American students have the ability to gain the digital age skills they need to compete, no matter who they are, where they live, or where they go to school. As a policymaker—and a parent—I believe that is a future worth fighting for.

But back to today. We have taken a first step. We have done good things. Thank you to the work of so many in the education and library community for your commitment to the E-Rate program and your contribution to this proceeding. Thank you also to the Chairman for his laser-like focus on the power of Wi-Fi in our schools and libraries. We have more work ahead for E-Rate 2.0, but this is a terrific start.

**DISSENTING STATEMENT OF
COMMISSIONER AJIT PAI**

Re: *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184.

In America's northernmost library, up in Barrow, Alaska, I saw last summer how broadband can connect a community that no road reaches. In an 8th-grade classroom in a predominantly Hispanic school in Los Angeles, I saw the promise of the interconnected classroom come to life. In a library in South Dakota, in schools in Kansas, I saw the potential of next-generation technologies to empower small communities and give rural Americans the opportunities found in our nation's largest cities.

Students and teachers, parents and school boards, librarians and library patrons: They were promised E-Rate modernization. They deserve a student-centered E-Rate program. They need real reform. And what does the FCC give them? The status quo.

Whether you call it a DisconnectED initiative, E-Rate 1.2, or just 162 pages endorsing more of the same, the FCC has forfeited this opportunity for real, bipartisan reform of the E-Rate program. This is disappointing. Real reform would have meaningfully simplified the application process. It would have ended the unfair treatment of small, rural schools and libraries. It would have let local communities set their own education-technology priorities. Instead of slapping a plan together at the last minute after being called out by Republicans and Democrats alike for numbers that didn't come close to adding up, the Commission could have kept its promises, rather than breaking them as it does today.

Let's start with one point of apparently universal agreement: The E-Rate application process must be, as the *Order* puts it, "fast, simple, and efficient."[1] And yet the rhetoric doesn't match the reality.

Will schools and libraries generally still have to fill out a 17-page application to receive funding? Yes. Will they still have to follow specialized procurement rules in addition to state and local rules? Yes. Will they still have to sign a contract before knowing whether funding is even available? Yes. Will they still have to wait months after applying to receive any commitment of funding? Yes. And will schools still have to decide how to spend E-Rate funds up to a year before the school year begins? Yes. As Kevin Bacon put it in *A Few Good Men*, "These are the facts of the case. And they are undisputed."[2]

So what *does* the *Order* do to streamline the bureaucracy? Very little. There is the token stab at trimming a few pages from the initial application for applicants with multi-year contracts—but only for five-year contracts that give applicants little flexibility to adjust terms to changing needs.[3] There is some scaling back of E-Rate's procurement rules—but only for a subset of services that are subject to change every year or two.[4] And there's the elimination of the technology planning requirement—but no one has had to comply with that requirement for the last two years.[5]

In fact, the Order *adds* to the paperwork. Applicants will now be required to keep records for ten years.[6] So if the applicant cannot prove that its initial application passed the 28-day-rule,[7] the price-is-the-primary-factor rule,[8] the 30-percent-ineligibility rule,[9] the brand new preferred-contracts-must-be-

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[1] *Order* at para. 55.

[2] Captain Jack Ross, *A Few Good Men* (Columbia Pictures Corp. et al. 1992).

[3] *Order* at para. 191.

[4] *Id.* at paras. 170, 199.

[5] *Id.* at para. 197.

[6] *Id.*, Appendix A, Rule 54.516(a)(1).

[7] *Id.*, Appendix A, Rule 54.503(c)(4).

[8] *Id.*, Appendix A, Rules 54.503(c)(2)(ii)(B), 54.511(a).

considered rule,[10] the brand new within-scope rule for multi-year contracts,[11] or any one of the myriad other "rules" that have crept into E-Rate's specialized procurement process, a school or library may be stuck with a multi-million dollar bill from the government a decade after the fact.

This assumes, of course, that a school or library gets funding in the first place. To apply, schools and libraries will be required to calculate up to three separate funding discounts and a five-year internal-connections budget. These numbers, in turn, aren't based on a school's own conditions but the aggregate statistics of its district and the percentage of the district's physical buildings in rural areas. Consultants and surveyors are sure to delight in this new work.

And what approach does the *Order* take to reducing the backlog of E-Rate appeals? Far from making the application process simpler, it layers onto our rules exceptions that have qualifications that themselves have exceptions—with everything to be ironed out at some indeterminate point in the future.[12] To be sure, the *Order* will reduce *the FCC's* backlog by mandating that applicants go back to the Universal Service Administrative Company (USAC) if they think USAC has erred.[13] But this is just window dressing. Stripping schools and libraries of their procedural rights doesn't do them any service. And adding yet another step to the process won't expedite action.

By doubling down on complexity, the *Order*'s approach also will exacerbate the rural-urban E-Rate gap. Small and rural schools and libraries cannot afford to hire the consultants that help large, urban school districts navigate the E-Rate process. That's why so many rural schools and libraries simply don't participate in the E-Rate program today. *That* is a real digital divide—and the *Order* doesn't even try to address it.

But don't take my word for it. Just this week, Cortney Buffington, the executive director of the Kansas Research and Education Network, wrote me: "The fact of the matter is that the truly needy schools and libraries in our state suffer because of the complexity and cost associated with the e-rate program. . . . [O]ur members cannot afford for us to carry upwards of 2–3 years of accounts payable waiting for payments from the Federal Government. Nor can we afford to efficiently navigate the consortium application process without driving up costs, or finding ways to game the system to make up for it."[14]

Moreover, the *Order* keeps in place for priority one services E-Rate's inequitable funding approach that gives many large, urban districts 90 percent discounts without limit. The more you spend, the more you get. It's no wonder that, as the current program stands, a handful of urban schools walk away with the lion's share of funding while students attending other schools that need funding are deprived year after year. Indeed, the District of Columbia gets the second-most E-Rate funding each year on a per student basis ($139.97)—about three times the national average ($44.28)—yet not one school or library in our nation's capital can credibly be called rural. Once again, those inside the Beltway win while rural America is left behind.

(Continued from previous page)

[9] *Id.*, Appendix A, Rule 54.504(b).

[10] *Id.* at para. 176.

[11] *Id.* at para. 191.

[12] For example, the *Order* promises to fund the broadband needs of all schools, except that mobile broadband service doesn't count—with the qualifier that it does if an applicant can "demonstrate to the Commission and USAC that individual data plans are the most cost-effective option for their situation by submitting the cost comparison information upon request." *Id.* at para. 153. And are mobile broadband services category one or category two services? The *Order* doesn't say, leaving applicants to guess which discount matrix will apply and whether it affects their category two budget.

[13] *See id.*, Appendix A, Rule 54.719(a).

[14] *See also* SECA NPRM Reply Comments at 3–4 ("The single biggest complaint and concern of applicants is the timeliness of their receipt of their funding commitment decisions letters.").

The *Order*'s new budgets for internal connections only make it worse. The poorest rural and remote schools and libraries will have the same per-student budgets as their urban brethren, even though their broadband prices are higher, their tax bases are lower, qualified labor is harder for them to find, and competition is less prevalent in rural areas. And anyone who has been to the Alaska bush can tell you that Wi-Fi routers don't cost the same everywhere in the country. When you have to take a plane to get to the closest Wal-Mart, you get used to $10-a-gallon milk.

The *Order* also displays a curious disregard for the priorities of the local school boards, principals, teachers, parents, and librarians that E-Rate supports with funding. Instead of letting local communities set their own priorities, the *Order* reflects a Washington-knows-best mindset. It retains the priority system, with the FCC determining what gets funded each year (or week!) depending on the political winds. Just days ago, it looked like Wi-Fi was the priority and funding for Internet connectivity came in second. Today, Internet connectivity nudges back into the lead. Last year, mobile data services were given priority. Now, no longer. Indeed, managed Wi-Fi will now be eligible for E-Rate funding—but applicants better hope that they qualify for funding in the first two years since that eligibility has a built-in sunset.

Here's the thing. The FCC has no business micromanaging the technology priorities of our local schools and libraries. We simply aren't equipped to tell every library that it needs to buy these Ethernet wires or those Wi-Fi routers. We cannot assess the relative value of web hosting or caching servers or a larger broadband pipe to a school's academic achievement. And because every school and every library has its own unique needs, its own budget constraints, its own infrastructure with its own lifecycle, we should have the humility to recognize that local schools and libraries might be in a better position than officials in Washington, DC to set their own priorities. Some have called this notion "radical." I call it common sense.

Speaking of priorities, one of the main objectives of the *Order* was supposed to be closing the Wi-Fi gap. The *Order* promised over $5 billion for Wi-Fi over the next five years, funding that would be predictable and consistent so that schools and libraries could plan for the future. But as the commander of the U.S.S. Enterprise told Tom Cruise in *Top Gun*, "Son, your ego is writing checks that your body can't cash."[15]

As congressional leaders in the House and Senate recognized, the numbers for the Wi-Fi plan just didn't add up and would have blown a $2.7 billion hole in E-Rate's budget, slashing funds for Internet connectivity. I thank Chairman Rockefeller, Chairman Upton, Chairman Walden, Senator Thune, and Senator Markey for their leadership on this issue. I also thank Commissioner Rosenworcel for her efforts. While we have good-faith disagreement on some issues related to E-Rate, we have a common understanding of arithmetic.

And so the Wi-Fi plan has been scaled back: The plan will last two years, not five. It will end automatically instead of continuing in perpetuity. Priority one services will still have first priority and priority two services will still have second priority (although I concede the *Order*'s groundbreaking innovation of changing the nomenclature to "category one" and "category two"). And the $1 billion per year funding target for Wi-Fi is nothing more than the traditional carry-forward of unallocated E-Rate funds from prior years, with somewhat better marketing.[16]

[15] Stinger, *Top Gun* (Paramount Pictures 1986).

[16] *See Order* at para. 78 ("[W]e direct USAC to shift funds targeted for category two services to meet all eligible requests for category one services, in any funding year in which demand for category one services exceeds available funds."); *id.* at para. 81 ("In the event that requests for category one services are less than the available funding and demand for category two services is higher than the $1 billion target for category two services at the close of the funding year window, the Bureau . . . may redirect the excess funding to category two services in the same funding year.").

That's not real reform, and it leaves a lot of broken promises. The purported 75-percent bump in Wi-Fi funding for rural schools and libraries?[17] It's closer to 0 percent. The 60-percent increase for urban applicants?[18] It's been slashed too. And because the *Order* allows applicants to receive five years of funding even though this is now only a two-year plan—a curious decision to say the least—the same schools and libraries at the front of the line that have been getting internal-connections funding over the last five years are likely to get the lion's share of the money.[19] And so the number of students newly seeing the impact of Wi-Fi funding isn't the promised 43.6 million.[20] It's probably closer to zero. That recent FCC chart showing state-by-state numbers of additional schools and libraries that are likely to get new Wi-Fi funding over the next five years as a result of the *Order*? Let's just say that it's no longer operative.

Even these scraps depend on accounting gimmickry. Since February, there's been the repeated refrain that the FCC "will invest an additional $2 billion over the next two years to support broadband networks."[21] But the last public accounting of unused funds in the E-Rate account said that only $600 million was available, with $200 million needed this year just to meet demand for priority one services.[22] That leaves us $1.6 billion short. Where will that money come from? The only place it can: the $4.7 billion in committed funds in the E-Rate account. So schools and libraries should be prepared for more broken promises, as the FCC will have every reason to come after money we've already committed to pay for promises the *Order* is just now making.

So what's next? I doubt the recent scramble to claim fiscal responsibility is anything more than a passing fad. After all, the *Order* avoids the chief cause of waste in the current program—discount rates of up to 90 percent with no budgets for big spenders. It adopts connectivity targets that are based on speculation, not science, and proposes to "size future funding needs" based on these goals, regardless of their impact on student achievement.[23] And several outside parties have already told me they've been promised a post-election increase in the E-Rate budget. They even told me the specific month it was coming: December. The story was remarkably consistent.

So mark my words: Any talk of fiscal responsibility will be short-lived. In five months, maybe six, we'll be back at this table discussing how much to increase Americans' phone bills. Universal service contribution rates have jumped 60 percent under this Administration. What's a few billion dollars more?

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One year ago, then-Chairwoman Clyburn brought the Commission together to begin the process of reinvigorating, revitalizing, and revamping E-Rate. I enthusiastically supported that Notice of

[17] FCC, *Modernizing E-Rate: Providing 21st Century Wi-Fi Networks for Schools and Libraries Across America* at 5 (July 1, 2014) (*Modernizing E-Rate June 2014 Report*), *available at* http://go.usa.gov/XpeT.

[18] *Id.*

[19] Indeed, schools and libraries with the highest discounts (the 90% applicants) requested almost $1.7 billion in P2 funding this past year, *see* Letter from Mel Blackwell, Vice President, USAC, to Julie Veach, Chief, WCB, FCC, CC Docket No. 02-6 (April 17, 2014)—enough to consume almost all the funding made available under the *Order*'s reframed Wi-Fi plan in a single year.

[20] *Modernizing E-Rate June 2014 Report* at 8.

[21] FCC, *FCC to Invest Additional $2 Billion in High-Speed Internet in Schools and Libraries* (Feb. 3, 2013), *available at* http://go.usa.gov/XptY.

[22] *Wireline Competition Bureau Announces Carry-Forward of Unused Schools and Libraries Universal Service Funds for Funding Year 2014*, CC Docket No. 02-6, Public Notice, 29 FCC Rcd 4967 (2014), *available at* http://go.usa.gov/XptQ.

[23] *Order* at para. 268.

Proposed Rulemaking because it held out the promise of a better E-Rate program, one centered on students and not bureaucrats. That document was backed by a bipartisan, unanimous vote. As I said back then, and I as believe today, "When it comes to our children's education, we should not be afraid of the hard choices. We should not tinker around the edges. We should shoot for the moon. And we should aim to win."[24]

We should have adopted a student-centered E-Rate program. A one-page application. A funding commitment process that would last no more than a week. A 50 percent bump in funding for rural and remote schools and libraries, rather than the 0–10 percent offered by the *Order*. An end to the outdated priority system, allowing local communities make their own decisions. An increase in funding by up to $1 billion each year for next-generation services, all without raising fees a dime.

What disappoints me most is not that the Chairman's office rejected my own longstanding proposal, nor that it rejected the compromises I offered working within the *Order*'s framework, nor that it rejected all of these belatedly.

No, what disappoints me most is being told that further simplifying the application process and giving applicants additional flexibility were "non-negotiable." That reducing incentives for waste and fraud was a "red line" that could not be crossed. That increasing the equity of the program for rural schools and libraries apparently violated a "bedrock principle." And that having the money to meet our promises was too "radical" an idea, at least when proposed by a Republican.

It is unfortunate that take-it-or-leave-it, party-line votes have become the new normal for high-profile Commission items. Making it worse, the final draft of this item was not provided to me until 10:13 a.m., 17 minutes before this meeting. Needless to say, I did not have a chance to carefully review the revised item upon which we are now voting. I was able to notice, however, that the pre-discount cost of the Wi-Fi plan increased by $300 million overnight. This is not good process.

And it is devastating substance for America's teachers, librarians, parents, students, and library patrons, many of whom I've met over the past several months, and all of whom believe, as I said almost one year ago, that "E-Rate is a program worth fighting for."[25] After the band packs up and goes home, and after the happy headlines fade, they are the ones who will have to wait years more for 21st-century digital opportunities—for real E-Rate reform.

For all of these reasons, I dissent.

[24] *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Notice of Proposed Rulemaking, 28 FCC Rcd 11304, 11477 (Statement of Commissioner Ajit Pai).

[25] Remarks of Commissioner Ajit Pai, "Connecting the American Classroom: A Student-Centered E-Rate Program," American Enterprise Institute (July 16, 2013), *available at* http://go.usa.gov/jbD3.

## DISSENTING STATEMENT OF COMMISSIONER MICHAEL O'RIELLY

Re: *Modernizing the E-rate Program for Schools and Libraries,* WC Docket No. 13-184.

This order represents a missed opportunity to comprehensively reform the E-Rate program to ensure that it meets the needs of students and library patrons in the 21st Century. The order spends a minimum of $2 billion on the policy *du jour*—closing the so-called Wi-Fi gap—while largely neglecting the rest of the program. And it initiates this new spending spree without having first determined the long-term budget for the entire program. As a result, the shortsighted decisions today could lead to either a funding cliff for schools and libraries or higher phone bills for American ratepayers. Therefore, I must strenuously dissent for both process and policy reasons.

In my short time at the Commission, I have not publicly criticized process issues. Instead, I prefer to focus on substantive concerns, if any, and address internal procedure behind the scenes. Unfortunately, the process used for this item was unacceptable. Let me explain my frustration and disappointment. Before the item was even circulated, I held two briefings with Commission staff to understand the direction it was going. In response, I submitted big picture edits that respected their direction. Again, this was before the item circulated. I believe my proposed edits kept to my principles while still showing a great willingness to compromise. I then held two more meetings with Commission staff in which I explained my thoughts and concerns and sought their input on what was doable—all the while making clear that I wanted to get to "yes." Weeks passed as I waited for a response. During that time, my staff and I were told to hold off on suggesting any further edits to the item until a new document could be circulated. That opportunity never came. Instead, late last night, I received a new document only to learn it would be a straight "NO" across the board for any of my edits and suggestions. A goose egg. No attempt was made to work out even the smallest of details. In the end, I never expected to get everything I proposed, but I don't believe it is appropriate to refuse to negotiate with me just because I am a Republican appointee.

To be clear, I support E-Rate. It has been helpful in bringing telecommunications and Internet service to virtually all schools and libraries. That connectivity has expanded access to educational resources benefitting teachers and students. And it has enabled people that might not otherwise have Internet access to use it at a library to obtain information, apply for jobs, and perhaps even file a complaint or comment with the FCC.

Early on, I set forth my principles for E-rate reform: refocus the program on broadband by eliminating outdated services; keep within an overall USF budget so reform doesn't come at a cost to consumers; leverage existing investment rather than overbuilding; increase matching requirements consistent with other programs; don't oversupply; and overhaul program administration. Accomplishing reform within these broad guideposts should have been easily achievable. But today's order rejects modifications based on these principles, defers others, and takes questionable half measures on the rest. And it does so in a brazen partisan fashion.

Fundamentally, I am concerned that this order shies away from comprehensive reform, even though the record is clear that such changes are long overdue. Promising to expand the scope now and reform the rest of the program later is a sleight of hand tactic that we see all too often in Washington, D.C. It is irresponsible. If we were serious about reforming the entire program, then why not at least put a serious proposal for the remaining reforms in the Further Notice rather than seek comment on an assortment of odds and ends and a budget increase. It is even more disturbing to hear informally that the justification for deferring the budget decision is to get the issue past the November elections. Obviously, the Commission is worried that Americans won't like the budgetary effects of the changes we are considering on their pocketbooks, and therefore we have to slide them in after the election when they can't do anything about it for a while. To me, this is a clear sign that we should reconsider the underlying decisions.

Relatedly, I disagree with the order's single-minded focus on Wi-Fi. While some schools and libraries may benefit from improved Wi-Fi access within the building, others still need connectivity *to* the building. Connectivity is still a necessary prerequisite. And demand for bandwidth will only increase—indeed, it could be intensified by making Wi-Fi more widely available. Yet we do not adequately address that here.

I am especially worried about initiating a new, perceived Wi-Fi entitlement without having a long-term plan, much less a sustainable one, for the entire program and USF spending. After two years, it's not clear whether funding will continue to be available for Wi-Fi. That's hardly the predictability that schools and libraries need. Or perhaps, by then, the majority of the Commission will have tried to ram through an increase in the E-Rate budget. If a justification can be made to increase the E-Rate budget, then that makes it even more imperative to establish an overall budget for USF so that consumers that pay fees on their phone bills to support USF are not further burdened by the FCC. Instead, I am very troubled that we will be told to look the other way and just increase the contribution factor even more. And if we consider it here, I fully expect that there will be calls to increase contributions for the other programs too. I stand ready to be corrected on this point, but it always seems easier for some people to take more money from the American people via higher taxes and fees rather than do the hard work. If more funding is necessary for E-Rate, let's dig in and find offsets, not stick it to hard-working poor and middleclass Americans.

In terms of the item specifics, let me just touch upon a few, although there are so many. First, I find the assumption for tying E-Rate support to libraries on a per foot basis to be one of the silliest policies I have ever seen. The size of a building is supposed to be the proxy measurement for how much subsidy a library should get? It makes as much sense as counting roofing tiles, toilets, or surrounding trees. I can't believe this is the best we can do.

Second, I'm mystified by the decision to increase the matching requirements, but only for internal connections and only for the poorest schools. That is completely backward. More skin in the game through higher matching rates is important for all discount levels so we can stretch E-Rate dollars further and promote greater efficiencies. Since we seem to agree that's a good policy, I don't understand why we wouldn't apply it across the board.

Third, I do not see where lowest corresponding price is reflected in the underlying statutory authority. The statute calls for a "discount," not the lowest price plus an additional discount. Congress is completely aware of how to establish a requirement to offer the lowest price, if it chooses to do so, as it did many years ago with lowest unit rate for political advertising. It did not do so in this instance, and therefore I am not in agreement with our current rules that suggest otherwise. While our interpretations may have been upheld, it's never too late to follow the statute. Moreover, this misguided policy has spawned unnecessary confusion, tying up funding while the Commission and USAC try to sort out how to apply it in practice. And now we are upping the enforcement ante.

Fourth is the assault on the Commission's competitive bidding process. The record made clear that competition in the program can dramatically reduce costs, allowing schools and libraries to make the most of their E-rate funds. While it may be true that avoiding competitive bidding could speed up timing, exempting services from these important requirements is also the way to install graft, fraud, waste, abuse, and criminal behavior. For a Commission that is supposedly focused on competition, this is a puzzling step backwards.

Last and most infuriating, the item delegates so much authority to the Bureaus and USAC to do almost whatever they would like, whenever they would like to do it. This is not a criticism of our professional staff, who are dedicated and hardworking, but rather I worry this mechanism is a way to remove accountability and bury decisions that should be made more public.

I thank the staff for their many briefings and only wish they were authorized to actually consider a balanced plan that we all could support. Perhaps next time we will have the opportunity to roll up our sleeves and work together in a bi-partisan manner to complete necessary reforms.