Before the
Federal Communications Commission
Washington, DC 20054

In the Matter of:

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

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Reply Comments of the American Library Association
in Response to Notice of Proposed Rulemaking
to Modernize the E-rate Program
(WC Docket No. 13-184)

Executive Summary

The American Library Association (ALA) was gratified to see the outpouring of comments from a range of stakeholders on this Notice of Proposed Rulemaking (NPRM). Representing the library community, we are especially pleased that the overwhelming sentiment of commenters is that the E-rate program is both successful and critical in supporting high-capacity broadband networks on which our students and communities depend. We note the broad recognition that demand vastly outpaces capped available E-rate funding, and it is in the national interest to increase investments in library and school broadband capacity. We also welcome the overwhelming consensus for streamlining the program, which will extend E-rate's benefits to many of the libraries that have identified program complexity as the top reason they have not previously participated.

In these reply comments we take the opportunity to:

- Reiterate the critical role libraries play in the lives of K12 students, as well as the adults that libraries serve every day;
- Provide additional details on our ConnectUS and FINAL proposals that support the Commission's and the President's broadband connectivity goals for libraries and schools;
- Urge the Commission to seize the opportunity afforded through the NPRM and ConnectED to strategically invest in the E-rate program to ensure libraries and schools can support the educational success of all learners in coming years;
- Emphasize specific issues on which there is broad support from other commenters, including expedited review of multi-year contracts and allowing direct payment to applicants;
- Affirm program changes that will incent more applicants, reduce program complexity, and yield more cost-effective solutions;
- Provide additional insight on several key issues that are unique to library applicants; and
- Seek swift action on E-rate reform.

Over the past several months, ALA has heard from a wide range of our 58,000 members—including state and local public library leaders—regarding the importance of the E-rate program and what it has enabled for communities nationwide. In more than 60% of communities, libraries report they are the only no-fee provider of access to computers and the internet. Increasingly ubiquitous Wi-Fi, a massive transition from physical to digital collections, increased demand for

digital literacy training, and a growing number of digital media labs demand a healthy and robust E-rate program so that libraries may meet the needs of nearly 30 million users each week.

At a time when the average library and school broadband capacity rivals that of many home users, we cannot afford to delay in pushing forward on E-rate reforms to help achieve the connectivity goals the 21st century requires.

Libraries and learning: The next 20 years

In our initial comments, ALA introduced SEALIGHTS as a shorthand to capture the depth and breadth of library services offered in communities nationwide.[1] We focus now more specifically on the role libraries play in advancing the President's vision for connecting K12 students to digital learning opportunities. We wholeheartedly agree that "we must make our schools an integral part of the broadband and technology transformation,"[2] but we remind the Commission and other stakeholders that libraries are the other critical link in ensuring our students have access to technology, digital resources and the skills necessary to apply those tools so that they are prepared "for a collaborative and networked economy."[3] As Education Secretary Arne Duncan stated, "We want to make sure every child… [has] access to knowledge and the chance to learn 24/7. The idea that [a child] could just sit [at her] desk, 6 hours a day, 5 days a week, 9 months a year to learn? That simply doesn't make sense anymore."[4] ALA agrees that learning is not—and should not—be confined to the classroom.

With robust afterschool programs, as well as lifelong learning initiatives, libraries are partners with schools in supporting youth in an increasingly diverse and "always on" learning ecology. In a recent Pew Internet Project survey, 70 percent of parents reported that their child visited a public library in the past 12 months. Of these, 77 percent of children ages 12-17 went to the library to do school work; this is true of a majority of *all* children.

For example, after a school consolidation in DeValls Bluff, Arkansas (population 800), students now have a longer trip to school, and are on the school bus early and late. As a result, they are unable to find sufficient time to use the internet at the consolidated school. Through a recent upgrade in connectivity, the local library has become an essential resource for completing homework assignments. The increased capacity, enabled by E-rate funding, also provided the necessary infrastructure for a teenage single mother to receive her GED. She then used the library's internet to take online courses that qualified her to enter a nursing program at a local community college, where she is scheduled to graduate this fall.

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[1] SEALIGHTS encapsulates the myriad of library services including: **S**choolwork and sustained lifelong learning; **E**mployment and economic development resources; **A**ccess to technology, digital content & trained librarians; **L**iteracies of all kinds supported by library staff; **I**nnovation and inspiration; **G**overnment resources and services—increasingly online only; **H**ealth and wellness information; **T**raining and teaching; and **S**ocial connection—including seniors and those with special needs. See comments of the American Library Association, WC Docket No. 13-184, filed September 16, 2013.
[2] See http://www.whitehouse.gov/sites/default/files/docs/connected_fact_sheet.pdf.
[3] Ibid.
[4] See www.ed.gov/edblogs/technology/connected/.

This critical, complementary support also bridges the perpetual gap for students who continue to lack or have inadequate home broadband access. Unfortunately, home internet remains unaffordable for a significant number of families in communities across the country. Libraries are often the lifeline for these families.

The Sunflower County Library System, in a small rural community located in the Mississippi Delta, has participated in the E-rate program since 1998. Because the county has high unemployment rates and low wages, the county library system provides many of the county's residents with their only source for internet access. One family, in particular, came to rely on the library after their child suffered a traumatic brain injury. After years of costly treatments and therapies, the parents were told the child would probably never graduate from high school due to his learning disabilities. He needed streaming visuals in all areas of his academics, but the family could not afford the needed internet service. Because of the E-rate supported access at the library, the child was able to get the online resources he needed to not only graduate from high school, but continue to college and become a productive member of society.

In Ohio, the Milton-Union Public Library hosts students accessing online classes and tests at both the college and K12 levels. Most students don't have home internet access, and the library is the only no-fee source of internet access (in good weather, students sit by library doors to easily use their laptops with the library's WiFi connection). The library's public computers are busy with adults applying for jobs, filing for unemployment, and accessing the online Learning Express Library to practice for GED tests, Armed Services Vocational Aptitude Battery tests, and other occupational certification tests.[5]

Unfortunately, nearly half of libraries still have speeds on par with home broadband services, which put limits on the services they can offer. One Pennsylvania library deferred offering interactive online homework help until its upgrade was complete, and an Arizona library was forced to block websites and streaming sites during afterschool hours when the library's internet traffic caused the shared network that supported all city agencies to crash.

On the other end of the broadband continuum, however, high-capacity broadband drives innovation in library services for young people. For instance, the Chicago Public Library system provides interactive online tutoring including live chat and the use of internet-enabled "white screens" that allow students to write out a math problem and receive real-time feedback.[6] The Howard County Public Library System (Maryland) continues to build on its HiTech program, a STEM initiative for teens that "provides hands-on, project-based classes in such skill areas as computer programming, 3-D animation, green energy, nanotechnology, music/video production, e-books, game app design, cybersecurity, and robotics."[7] Innovative learning takes a different form in the St. Louis Public Library, which regularly programs young-adult author

[5] See http://www.learnatest.com/LEL/index.cfm/.
[6] See http://www.suntimes.com/news/cityhall/22945068-418/city-library-to-provide-on-line-tutoring.html.
[7] See http://www.slj.com/2013/10/technology/howard-county-md-libraries-to-expand-hitech-initiative-with-267500-imls-grant/ and also http://hclibrary.org/index.php?page=691.

appearances via Skype. In addition to the regular presentations and open discussion, youth from the city's juvenile detention center are brought to the library for their own Skype author sessions once a month.

Experiences like these are not always available in the public school setting. Given the many curricular and testing demands during school hours, there is very limited time for investigative project-based learning. Libraries are well-positioned to extend classroom learning through cutting-edge tutoring support and in informal collaborative learning spaces. Libraries have made gains in broadband connectivity over the life of the E-rate program, but stories like these are not yet commonplace for one primary reason—the lack of access to high-capacity broadband. We urge the Commission to capitalize on the opportunity embodied in the ConnectED initiative to support the broadband services needed by our nation's libraries and schools for the immediate benefit of our students and the communities in which they live. Investment in our nation's libraries yields a robust return on investment and compound interest besides.[8]

A bold vision for the E-rate program that ensures digital promise for all

ALA continues to support the proposed ConnectED initiative as stated in our initial comments. ALA agrees with Sunesys, which states it "… is open to supporting additional, temporary funding for a three-year period such as that recommended by the ConnectED initiative. Any additional funding, however, should be focused on making high-capacity broadband connectivity available to schools and libraries."[9]

The need to raise the bar for our nation's libraries is striking. Data from ALA and Connected Nation[10] find that the average library has about the same connectivity as the average home. With an average of 16.4 public computers and more than 40 percent of libraries with maximum internet speeds of less than 4 Mbps speeds or less, we are falling behind. We agree with Connected Nation: "The majority of schools and libraries simply do not have the bandwidth necessary to meet their future, let alone current needs."

Thus, ALA advocates a two-pronged strategy comprised of (1) a new limited-term major investment that brings many more libraries and schools into the high-capacity broadband world and (2) a permanent increase in the E-rate fund to sustain and advance broadband capabilities for years to come. As discussed in our initial comments, ALA proposes two short-term programs that build on the ConnectED initiative, ConnectUS and FINAL, to implement the first prong of the strategy.

ConnectUS

The concept of a limited-term broadband deployment fund is resonating within the school and library communities. We know that some libraries have already benefited from such broadband build-out projects. Predicated on additional funding, the ConnectUS program would jumpstart

[8] See for example, http://www.urban.org/uploadedpdf/1001075_stronger_cities.pdf.
[9] See comments of Sunesys, WC Docket No. 13-184, filed, September 16, 2013.
[10] See comments of Connected Nation, WC Docket No. 13-184, filed September 16, 2013.

build-out to libraries and schools where high-capacity broadband is not currently available. Focusing a short-term investment in these areas will move those applicants who are furthest behind closer toward the broadband goals laid out in ConnectED.

An example of a successful ConnectUS type project comes from the Houghton Lake Public Library (HLPL) in Michigan, which serves a community of 15,300 where the major industry is tourism. In recent years, visitors increasingly expect high-speed access; without it, the local economy is jeopardized. In December 2012, the Merit Network was able to connect the library as a BTOP (Broadband Technology Opportunities Program) community anchor institution via fiber. The library, supported via an 80% E-rate discount, was able to increase its capacity from two leased T1 circuits to a 1 Gbps fiber optic connection with an annual cost savings of $9,450.

With this new broadband capability, many new learning opportunities based on video and other high-capacity technologies became possible. "For so long we have not pursued the internet's possibilities due to our bandwidth limitations, and now we can finally move forward," said Kim Frazho, former HLPL technology coordinator and trainer. "This means more to our community than you can possibly imagine."

The Columbia County Rural Library in Dayton, Washington, also benefited from BTOP-funded fiber construction through Northwest Open Access Network (NoaNet). In October 2012, the CCRL fiber was lit and the library leaped from 2 Mbps to 10 Mbps speeds. E-rate funding (at an 80% discount) now supports the library's recurring costs of $482 per month. "Without the library—both internet access and staff help—many people (in our community) would be shut out of the e-government service created on their behalf," said Library Director Janet Lyon. "Thanks to E-rate and BTOP, we are their lifeline." Patrons also are now able to download e-books and audiobooks in 20 minutes instead of four or five hours in the past.

Other library success stories exist, but they remain the exception rather than the rule. We need a major push now so that these stories become commonplace. A number of stakeholder groups who commented on the NPRM are supportive of this concept. For example, the National Association of Telecommunications Officers and Advisors (NATOA) also calls for a capital investment fund aimed at bringing high-capacity broadband infrastructure to schools and libraries. NATOA comments that "While the upfront costs may be significant in constructing new networks to serve schools and libraries, we believe the long-term benefits and, just as importantly, cost savings, clearly tilt the scale in favor of such projects."[11] The Merit Network comments that "Fiber construction should be included in order to build the infrastructure needed to support and achieve the goals of the ConnectED initiatives. The funding cap needs to be increased in the short term to fund one-time infrastructure upgrades to achieve the ConnectED."[12]

[11] See comments of NATOA, WC Docket No. 13-184, filed September 16, 2013.
[12] See comments of MERIT Network, WC Docket No. 13-184, filed September 16, 2013.

The Montana State Library notes that Montana ranks nearly last in the nation for broadband availability, putting its libraries out of reach of national bandwidth targets proposed by multiple commenters. "In light of the lack of overall broadband services available to Montana libraries, the Montana State Library suggests that the FCC create a separate, additional amount of funding in the E-rate program specifically directed to supporting the capital investment costs of deploying high-capacity broadband to libraries in areas like Montana where it is not currently available. Deployment should be tied to meaningful and attainable bandwidth goals and funding could be reduced over time as broadband capacity goals are achieved nationwide."[13]

In reference to this broadband investment, we can provide some initial cost estimates. We note that the state of Wisconsin estimated in 2009[14] that the average cost to bring fiber to 467 Wisconsin schools and libraries was $57,707 per library, though for various reasons, 4% of the sites had costs exceeding $150,000 per library. The average distance to pull fiber was 0.436 miles. This reflects the fact that almost all providers' central offices had fiber and most of Wisconsin's libraries and schools are in communities, not in the rural countryside. Hence, states with greater rurality would likely encounter higher costs. In another example, Merit Network notes that in their experience costs vary greatly, ranging from a low of about $6500 to a high of $96,000, depending on the location's distance from a backbone. ALA suggests that the recent BTOP Comprehensive Community Infrastructure (CCI) projects would likely yield accurate estimates in various regions and under differing situations from which the Commission could build a baseline estimate for required costs for a ConnectUS broadband build-out program.

Fast Internet Networks for All Libraries (FINAL)

Based on further discussions with librarians across the country, ALA remains firmly in support of a pilot program for libraries that have low connectivity but a vision for cutting-edge technology services for their communities. These libraries are located in areas in which higher speeds are available, but libraries lack the funding and/or technical expertise to realize such speeds. We propose 10 Mbps as the threshold for eligibility for the FINAL program. Currently, about one-half of libraries currently have broadband speeds under 10 Mbps.[15]

AT&T's comments echo those of ALA:

> "AT&T also believes the Commission should first address the needs of schools and libraries that still have inadequate or no broadband service by giving first priority to these applicants. In particular, it should target support to those schools and libraries that still lack access to adequate (or indeed any) high-speed broadband connections. It could do so, for example, by creating a fund that operates outside of the existing discount

[13] See comments of the Montana State Library, WC Docket No. 13-184, filed September 16, 2013.

[14] In October 2009 the Wisconsin Department of Public Instruction filed comments with the Commission as part of the National Broadband Plan's Public Notice #12, *Cost Estimates for Connecting Anchor Institutions To Fiber*. With the NPRM's emphasis on fiber connectivity we encourage Commission staff to review these more detailed comments at http://apps.fcc.gov/ecfs//document/view?id=7020243769.

[15] Based on public library data collected in fall 2011, 62% of libraries have broadband speeds under 10 Mbps. http://www.ala.org/research/sites/ala.org.research/files/content/initiatives/plftas/2011_2012/plftas12_technology%20landscape.pdf, Figure C-10.

> hierarchy to provide such schools and libraries with an express lane to the funds necessary to acquire broadband services."[16]

In our continuing engagement with the library field, ALA has identified several projects focused on large increases in broadband capacity made possible by the E-rate program. For example, the Douglas Public Library in Arizona completed a restructuring of its entire network. Prior to this project, the entire city shared a 7 Mbps connection. As a small, low-income community (few families have computers and broadband at home), when the library computers were fully occupied after school, connectivity for the entire city came to a crawl.

With the support of E-rate (at the 90% discount level), Douglas Public Library and the city upgraded to a DS3 and 45 Mbps service. The city IT department determined that the library comprised 90% of the internet traffic on the shared network and therefore cost allocated out 10% of the total cost. Library users could now have full access to the internet (previously, access to social media and video were severely constrained or blocked entirely, dependent on network traffic levels). The new connectivity also enabled planning for the future, "as the library wanted to offer video teleconferencing for job interviews and medical conferencing," said Victoria Yarbrough, former library director.

Larger library systems also have made quantum jumps in their broadband connectivity recently. Cuyahoga County Public Library in Ohio completed the construction of a new branch library in a low-income area (Warrensville Heights) in 2012 and opened its doors with a 1 Gbps connection. Up to the time of the opening, the library system was struggling to meet demand with only 10 Mbps at each of its branches. Library staff often staggered classes and programs to avoid maxing out the broadband.

The cost to maintain 1 Gbps is only slightly more than double the cost for 10 Mbps. "We were surprised that the jump to a gig was much more affordable than expected," said Rebecca Ranallo, information and technology literacy manager. "Our initial move to gig connectivity was based on our culture of innovation and a desire to bring more to our community. We also found that just having the speed increased our ability to find local organizations and partners that in turn increase our ability to seek grant funding for projects." The library also made an investment in a 10 Gbps interface for the administration building and data center, which allows them to push connectivity at 1 Gbps to 25 of the 28 the branches. This upgrade was supported by E-rate discounts (the library system is at the 57% level).

These examples of major upgrades are noteworthy. We need the FINAL pilot to enable high-capacity broadband upgrades to become commonplace at U.S. libraries. As with the ConnectUS program, we continue to collect additional information and conduct analyses on various aspects of the FINAL program concept.

[16] See comments of AT&T, WC Docket No. 13-184, filed September 16, 2013.

ALA urges the Commission to infuse funding into the program

In order to achieve the ambitious connectivity goals set forth in the NPRM and through President Obama's ConnectED initiative, the Commission must use its authority to increase available funds for both the immediate and long-term viability of the program.

As evidenced in the large majority of comments and annual program demand, current funding levels are inadequate to raise the state of library and school broadband so that our students and workforce can not only compete in the global economy, but become leaders. For libraries and schools and the communities they serve, the E-rate program must enable the type of learning librarians, educators, and employers, know is essential today. ALA supports making the E-rate program more cost-effective, as we note here and in our initial comments, but we also firmly agree with the overwhelming voice of commenters that the fund requires a permanent increase in the cap. Finally, ALA urges the Commission to use this opportunity to exercise its authority and grant a short-term infusion of funds to meet the broadband connectivity goals laid out by the Commission and the President.

Consensus on streamlining and improving the application process

ALA is pleased to note that there are a number of issues related to streamlining the program, minimizing the burden on applicants, and encouraging efficient use of limited funds for which a majority of commenters are aligned. A number of changes will benefit applicants, service providers, and USAC as the program administrator (e.g., allowing direct payment to the applicant and an evergreen form 471). Changes that simplify the program such as an "evergreen" form 471, will encourage more libraries and schools to apply, create fewer opportunities for applicant error, and improve the disbursement of funds needed to efficiently deploy high-capacity networks. Such improvements as described below should not be underestimated. ALA encourages the Commission to move swiftly to make these consensus changes so that applicants can immediately take advantage of a simplified application and review process. Waiting for several application cycles will delay our libraries and schools from getting connected to high-capacity broadband.

Direct payment to the applicant
There is wide support for allowing applicants that file the BEAR reimbursement form to receive payment directly from USAC, rather than having the service provider serve as a pass-through entity.

While program applicants have long requested direct payment, notably in response to this NPRM, several service providers discuss the positive impact this reimbursement system would yield. Verizon provides insight into how the pass-through model burdens the provider and inevitably delays the reimbursement process: "Having service providers serve as a pass-through in the disbursement process places an additional burden on those providers to prepare and submit the necessary request for payment and requires extra levels of coordination between the applicant and the service provider on several thousand requests for payment, which adds extra steps and

inevitable delay in a process that already can be involved and time-consuming."[17] AT&T agrees and states "This proposed change would immediately simplify the disbursement process and make the program more efficient…"[18] with which ALA whole-heartedly concurs. Several other broadband providers (Education Networks of America and the Utah Education Network, for example) also support direct payment to the applicant for similar reasons. With such evidence of broad support, this is an action that the Commission should take immediately.

Multi-year contracts

Support for streamlining the review process for multi-year contracts and allowing an evergreen form 471 is also widespread among commenters. Like ALA, a number of commenters (Comcast, Sunesys, SECA, NASCIO, and The Quilt, for example) support one review of a multi-year contract at the start of the contract rather than repeating a review of the same contract each year over the life of the contract. Across the board, applicants that commented on this issue support a simplified review process for multi-year contracts to decrease the burden on the applicant and incent cost-effective purchasing.[19] We assume that the process would also reduce the burden on USAC during the review process. ALA does raise a question, however, to make sure that if the Commission should elect to change the rules to accommodate a streamlined review process for multi-year contracts, that it take into account contracts currently in place and clearly articulate in guidance how these applicants should proceed so that they are also able to take advantage of this simplified process. ALA contends that this is another reform that the Commission could implement immediately.

Procurement

Many commenters support ALA's position to allow applicants to follow state and local procurement rules rather than also having to adhere to the E-rate program procurement rules which can actually be in conflict with state and local rules. Exempting applicants from following the E-rate procurement rules when they are also required to follow state and local rules will both ease the burden on applicants and reduce the length of time such applications are under review. It is common practice for libraries to purchase goods and services using state procurement rules, which, in most instances, are more rigorous than the E-rate rules. In Kentucky, for example, the state procurement requirements mandate a competitive bidding process with built-in wait periods and public access to bids. Of note, the state Auditor's Office cited public libraries as exemplars of transparency and accountability in 2012.[20] ALA suggests that the Commission amend its rule to allow applicants to follow state and/or local procurement rules where they exist and to self-certify that they do so on the form 471. Adopting this change is a third area where the Commission could act immediately. If the Commission elects not to amend its rule, ALA suggests that the Commission exempt applicants requesting a *de minimus* amount such as $5,000, from the E-rate procurement rules.

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[17] See comments of Verizon, WC Docket No. 13-184, filed September 16, 2013.
[18] See comments of AT&T, WC Docket No. 13-184, filed September 16, 2013.
[19] See comments of the Council of Great City Schools and SECA, WC Docket No. 13-184, filed September 16, 2013.
[20] See comments of the Kentucky State Library and Archives, WC Docket No. 13-184, filed September 16, 2013.

Assessing burden versus gain
After reviewing the initial comments, we also note that there was significant concern that any changes to the program be undertaken in such a way that changes do not unintentionally add burden to the application process. The comments from the state of Hawaii typify concern from the applicant community: "In considering the many proposals raised in the NPRM, the Commission should take care not to offset these gains through the imposition of new burdensome requirements."[21] The E-rate program is notorious among applicants for the challenge of balancing the need to safeguard against waste and/or fraud with the need for the application process to be predictable and manageable for the applicants. The benefit of current proposals must be weighed against the potential for additional applicant burden.

Initiatives that promote smart stewardship of finite resources

Data collection
As a general concept, ALA agrees with many of the commenters who advocated for regular and transparent data made available to the E-rate community. We support the notion that basing program decisions on firm data will lead to sound decisions on how to size the fund, set appropriate targets and benchmarks, and determine which services are best supported from a policy position. A number of commenters suggest that through the various forms applicants and providers must fill out, most of the necessary data already exists. ALA recommends that as a logical starting point, the Commission work with USAC to determine what data is already collected and then, ensure that this already-collected data are readily available in usable and common machine-readable formats. The Commission could afterwards identify additional data that might need to be collected and propose a plan and schedule for doing so. ALA also recommends that providers be part of the process to ascertain library and school bandwidth levels.

Dark fiber
ALA notes there were a number of commenters that focus on the issue of fiber ownership and the treatment of dark fiber. As we stated in our initial comments, we support dark fiber ownership when choosing that solution follows these criteria:

- Total cost of ownership must be the primary factor in bid selection
- Construction costs over a certain amount should be amortized over at least a four year period

We do not suggest that fiber ownership should be mandated (in fact, we do not believe that any technology should be mandated) but rules should not inhibit this solution if applicants determine total cost of ownership makes dark fiber construction and the subsequent management of that fiber the most cost effective solution.

[21] See comments of the state of Hawaii, WC Docket No. 13-184, filed September 16, 2013.

There were some commenters, such as the Council of Great City Schools,[22] who were concerned about the variation on costs for dark fiber construction and the potential drain on the fund that could occur if a significant number of applicants determined that this path would be the best solution for their connectivity needs. However, we are confident that by requiring factors be considered like cost effectiveness, the total cost of ownership and amortizing construction costs will safeguard the finite resources available to applicants. We do continue to believe that if the total cost of ownership as determined by the applicant warrants the construction costs for dark fiber, that this should be allowable within the rules of the program. We believe that in some instances this may yield long-term cost savings for the applicant and thus for the program.

ALA also does not agree with comments that voiced concern that by putting dark fiber on par with lit fiber, the program would somehow move away from a hallmark feature: technology neutrality.[23] With respect to these commenters, we contend that treating dark and lit fiber according to the same rules actually creates a neutral focus on fiber and provides more choice for the applicant. In reality, today, if an applicant seeks 20 Mbps or more, that service is likely to require a fiber connection. We acknowledge in our initial comments that fiber will not work in some geographical areas (e.g., remote or mountainous regions where pulling fiber is cost prohibitive or infeasible for other reasons). We continue to support that the decision to construct a fiber network must be a local decision made by the applicant.

Phase out of services

Commenters varied widely in responding to questions about phasing out various currently eligible services. ALA found alignment in the concept that the most equitable approach is a phase-out system that would allow applicants sufficient time to adjust local budgets. Some applicants will continue to need support for legacy services (or services that do not directly promote high-capacity solutions) perhaps longer than for the majority of applicants. This may require a longer phase-out period.

In considering phasing out services, ALA supports the comment made by the state of Alaska that asks the Commission to continue to support services in an existing contract for an additional period of time.[24] Doing so may prevent unnecessarily complex negotiations for applicants and the service providers. ALA also appreciates that sentiment voiced by SETDA, "Presuming that the education needs being served by these legacy services can be met via broadband-enabled

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[22] See comments of the Council of Great City Schools, WC Docket No. 13-184, filed September 16, 2013. "In 2010, we agreed that E-Rate support should be available for **leasing only,** and **did not support** the use of E-Rate funds for the **construction of fiber networks**. We supported these limits **due to concern that the build-out costs would take the limited E-Rate funds away** from other supported services and applicants. That concern is still a legitimate one in light of the inadequate E-Rate funding cap that remains. ... If the E-Rate were to see the significant increase in funding that has been suggested, we would have less reservations about the proposed suggestions involving dark fiber in the Notice."

[23] See comments of Verizon, WC Docket No. 13-184, filed September 16, 2013. "Fiber deployment may be cost prohibitive or simply unnecessary in some areas or for some schools, and no one service is best suited to all circumstances. Accordingly, the E-rate program should remain technology neutral, allowing schools and libraries the flexibility to select the technology that best meets their needs."

[24] See comments of the state of Alaska, WC Docket No. 13-184, filed September 16, 2013.

services eligible under a modernized E-rate, SETDA believes that a rational, predictable phase out would increase resources available to meet the growing broadband needs of all schools and should be pursued."[25]

Enforcing the Lowest Corresponding Price rule

ALA appreciates the question over how to best ensure that applicants are receiving the best prices for the services they seek. Neither the applicant nor the provider community would welcome additional requirements for proof of competitive bids, or proof of prices paid for specific speeds, yet such information could prove valuable to make sure E-rate funds are being spent wisely and responsibly. ALA continues to believe that a significant and relatively easy first step is for the Commission to continue its enforcement of the lowest corresponding price rule. Some commenters voiced concern about the difficulty in how "similarly situated" and "similar services" can be best determined. It appears that if the Commission issues further guidance in this area that it would be easier for both the applicant and the service provider to make sure fair prices are being offered.

Reaffirming and building on ALA's initial comments

In its initial comments, ALA focused on a couple of issues of particular importance to the library community—considering how the E-rate program might better support the rural libraries that frequently face the highest costs in leveraging high-capacity connections for their communities of users and creating parity in how libraries' discount matrix is calculated in relation to schools and school districts.

Rural libraries should be eligible for increased discount
ALA re-affirms its call for the Commission to adopt the Institute of Museum and Library Services (IMLS) geolocation data for libraries, and to more equitably support libraries in rural and rural remote areas of the country. IMLS has replicated for libraries the geocoding National Center for Education Statistics (NCES) created for schools and provides urban-centric locale codes for library outlets. ALA recommends using these IMLS locale code designations for "rural" areas along with "town, remote" and "town, distant" to define "rural" for purposes of the E-rate program to ensure greater funding to libraries in truly rural areas and communities distant from urban cores. Of the approximately 8,200 library branches that were recipients of E-rate funds in 2010, about one-quarter would have been classified rural instead of urban under the revised locale-based classification system. Of these, 966 would have been eligible for a higher discount with a rural classification.

Both the Montana State Library and State of Alaska also flag concerns related to definitions and funding for rural libraries. Montana states: "As a state with predominantly rural communities, we believe it would be helpful to revisit some of the definitions used to define "rural." The Goldsmith definition, in many cases, incorrectly identifies a public library as urban because it's

[25] See comments of SETDA, WC Docket No. 13-184, filed September 16, 2013.

in the same county as an identified urban center. In Montana's large counties, this has had ridiculous results. We've seen towns of less than 1,000 people defined as urban when they're 50 miles or more from any city but are located in the same county. The Montana State Library suggests an additional definition of rural, remote to benefit Montana libraries which are indeed in remote areas with few services."[26]

Additionally, the State of Alaska discusses "extreme remote rural": "We have communities in our state that are much more remote than this definition [remote rural]. In addition to their greater distance from urban areas and urban clusters, these locations are separated by mountain ranges and lack a road system that connects them to the rest of the state. We consider those locations to be extreme rural remote locations and we feel that an additional 10% discount for these schools and libraries is justified in order to approach parity with applicants who do not face the high costs of these locations."[27]

ALA agrees with these states and others that believe rurality should continue to be factored into e-rate discounts (along with level of community poverty). ALA supports increasing the discount for remote rural libraries an additional 5-10% discount.

District-wide discount calculation
ALA notes that a number of school stakeholders raised valid concerns about the impact of going to a discount wide calculation method on schools across the country. ALA reiterates its initial comments that should the Commission elect to forgo requiring all schools to use a district wide calculation that libraries should have a parallel option—for example, the Commission could allow libraries to use the nearest elementary school to calculate their discounts. ALA looks forward to working with Commission to develop a method that can be readily implemented with limited applicant burden or additional burden on USAC.

Areas of concern

Any change involves some risk and a period of adjustment. ALA is confident the change can be well orchestrated with appropriate checks and time for addressing unforeseen implementation issues without unintentionally causing programmatic delays. We do, however, remain cautious regarding creating community hotspots through the use of E-rate funds. Finally we do not agree with commenters who suggest that there is insufficient data to determine appropriate bandwidth targets for the program. While there may be more work that could and should be done, we do not believe this is cause for delaying progress toward providing high-capacity broadband to libraries and schools.

Funding for mobile broadband is beyond E-rate funding and scope
ALA appreciates the comments of several parties that discuss the increasing importance of mobile access to educational materials outside of the library or school. Cisco, for example,

[26] See comments of the Montana State Library, WC Docket No. 13-184, filed September 16, 2013.
[27] See comments of the state of Alaska, WC Docket No. 13-184, filed September 16, 2013.

correctly discusses the need for end-to-end connectivity that allows students to do homework, watch videos and collaborate on assignments using wireless broadband services at home and elsewhere outside the library and school building. As *community* anchor institutions, libraries are strong supporters of the widespread adoption and use of wireline and wireless broadband services by everyone in their communities.

This does not, however, mean that the E-rate program should be tapped to pay for end-to-end connectivity at home or elsewhere outside the library or school grounds. There is a limit to the services that E-rate can fund, and we think supporting connectivity beyond the school and library is questionable under the statute that created the E-rate program. Some parties have suggested, for instance, that "the Commission should look to the future and allow E-rate funds to be used to fund mobile access to educational software, applications, and services."[28] Equally concerning is a comment suggesting that "E-rate reform must address home connectivity for underserved students in some tangible way."[29] ALA is supportive of increasing home access to high-capacity broadband and has been actively engaged in several recent initiatives supporting affordable access to computers, broadband and digital literacy training.[30] At the same time, however, we respectfully suggest that the E-rate is not the program to support home broadband use.

ALA cannot support this suggestion for several reasons. First, there is not nearly enough funding in the E-rate program to fund the *existing* needs; expanding the purposes of the E-rate program to cover mobile services at home and other locations off the library or school grounds will further diminish the funds available to provide high-capacity wireline and wireless access inside the library or school building, which must be the E-rate program's primary mission. Second, while ALA agrees with the importance of promoting broadband adoption at the home, the Lifeline program or the Connect America Fund are the Universal Service Fund programs better designed to address this need. Several trials of wireless broadband are currently taking place under the Lifeline program; the Commission should examine these results and continue to pursue reforms of the Lifeline program to promote wireless broadband connectivity at the home.

While E-rate funds should not be used to support end-to-end connectivity for networks outside the library or school grounds, library and school networks should be considered a potential leveraging tool to promote build-out of other "missing" pieces of community networks. This might include clear interconnection policies or new kinds of consortia. Since ALA cannot know all the variables to promote such leveraging, and there may be wide variables from community to community, the question of "leveraging" should be a long-term consideration for the Commission. The Lifeline trials and research on E-rate and other USF programs, could lead to future pilot projects, especially in communities where network build-out is slow or non-existent. Whether through community pilot projects or other policy determinations, the Commission should consider new ways of promoting collaboration, requiring interconnection and avoiding

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[28] See comments of Connected Nation, WC Docket No. 13-184, filed September 16, 2013.
[29] See comments of The Quilt, WC Docket No. 13-184, filed September 16, 2013.
[30] See for example, Connect2Compete http://www.connect2compete.org/. See also DigitalLearn.org http://digitallearn.org/.

needless duplication of network resources to systematically use limited resources to reach all parts of any community.

Unnecessary delay in implementing major program reforms will jeopardize the path toward achieving broadband goals for libraries and schools

A few commenters suggested that the Commission should further investigate the current landscape of broadband connectivity in libraries and schools before pursuing a goal that may not accurately reflect where we are or allow for accurate predictions of future growth. ALA respectfully disagrees. While we do support the collection of specific data that will inform decisions on how best to focus the E-rate program, we are concerned that if the Commission does not act swiftly, we will unnecessarily prolong closing the gap between what libraries and schools need and what is actually available to them. As the Utah Education Network, and other commenters point out, USAC currently receives detailed information about bandwidth through the existing Item 21 attachments.[31] Additionally, Education Networks of America notes that changes in the form 471 will allow the Commission to gain further insight into the speeds available to libraries and schools.[32] As Verizon suggests, the Commission can use the baseline of where libraries and schools are today to build rational benchmarks (that take into account differences in size and other factors) against which to measure progress toward its ambitious yet necessary goals.[33]

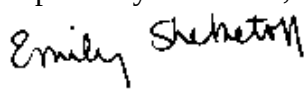
In general, while ALA supports the Commission acting swiftly in ruling on consensus changes that will lead to a streamlined program, ALA requests that the Commission consider the E-rate cycle which is more than the 12 month calendar year when *implementing* any program changes. Applicants as well as service providers require forewarning for new procedures or rules. Additionally, some of the more fundamental proposals may warrant a further notice or exploratory workshops so that stakeholders can more fully investigate the merit of such changes.

[31] See comments of the Utah Education Network, WC Docket No. 13-184, filed September 16, 2013.
[32] See comments of Education Networks of America, WC Docket No. 13-184, filed September 16, 2013.
[33] See comments of Verizon, WC Docket No. 13-184, filed September 16, 2013.

Conclusion

ALA again commends the Commission for initiating this comprehensive review of the E-rate program. In order to lead our nation's libraries and schools toward high-capacity broadband solutions and make tangible progress toward the connectivity goal, we urge the Commission to build on the momentum this NPRM has generated. Sustaining the investments of the first 15 years of the E-rate program and to propel it into the next decade and beyond necessitates prompt action to address the promise of ConnectED. This requires an additional infusion of funding, an investment that will reap immediate rewards. Libraries and schools connected to high-capacity broadband allow students and whole communities to cross boundaries where learning is not stifled by slow or unreliable connections. This proceeding holds the promise that inadequate broadband no longer limits what our students and our communities can achieve through their libraries and schools. ALA looks forward to continue working with the Commission and all E-rate stakeholders to bring this promise to fruition.

Respectfully submitted,



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