

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

In The Matter Of	)	
	)	
Modernizing the E-rate Program	)	WC Docket No. 13-184
For Schools and Libraries	)	
	)	

**REPLY COMMENTS OF THE  
AMERICAN LIBRARY ASSOCIATION**

**April 21, 2014**

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**Reply Comments of the American Library Association  
in response to Public Notice  
Seeking focused comment on E-rate modernization  
(WC Docket No. 13-184)**

**I. Executive Summary**

Ensuring libraries have sufficient advanced broadband capacity is essential for completing education, and jump-starting employment and entrepreneurship, for residents throughout the country. In addition, the sufficiently connected library greatly fosters individual empowerment and community engagement.

When one considers *The E's of Libraries*<sup>TM</sup>, which include **Education, Employment, Entrepreneurship, Empowerment, and Engagement**, it is abundantly clear that libraries are indispensable in supporting the needs of residents throughout the nation in virtually every aspect of life. Libraries do not make a small difference in this country, they make an extraordinary difference. And what is even more pertinent with respect to this proceeding is the following: libraries' impact throughout the nation will increase dramatically, with respect to all of *The E's of Libraries*<sup>TM</sup> referenced above, if one more E is added to the equation: **Excellent** broadband capacity.

Libraries desperately need excellent broadband capacity—defined as reliable, sufficient, and affordable broadband connectivity—that meets the needs of our nation's libraries, and therefore the needs of our residents. Education, Employment, Entrepreneurship, Empowerment and Engagement are not “nice to have” items, they are necessities that libraries play a critical role in providing and/or supporting. Sufficient advanced broadband capacity provides libraries the critical tool they need to thrive, which in turn allows our residents—and our country—to prosper in a multitude of ways.

Three other E's that also apply to libraries and provide an even more complete sense of their benefit—and potential for providing even greater benefits—to this country are **Expert** assistance, **Everyone**, and **Everywhere**. These “E's” have less to do with what libraries support and provide (which is what the earlier “E's” cover), and more to do with who assists, who can benefit, and where the libraries are located. As to expert assistance, trained librarians and other staff ensure that assistance is available to people who want to use the libraries' resources but are unsure how to do so effectively and efficiently. In fact, combining the expert assistance that libraries provide with excellent broadband capacity is a recipe for success for our residents and our country. By way of example only, affordable, scalable high-capacity broadband makes the difference between being able to offer interactive homework help; to enable mobile computer labs using WiFi in small libraries that lack dedicated computer training space; to support videoconferencing for job interviews, legal advice or tele-health—or not.

Unfortunately, as to the “not” referenced in the preceding sentence, for many libraries, sufficient advanced broadband capacity is the one ingredient missing in that recipe for success, preventing such libraries from providing so many greater benefits relating to Education, Employment, Entrepreneurship, Empowerment and Engagement. Yet when such advanced broadband capacity is provided, these benefits can be realized by everyone, everywhere in the United States, as libraries serve the young, older adults, all ages in between, those with disabilities, and other vulnerable populations—you name it, libraries serve them. Moreover, libraries are ubiquitous throughout the country. Therefore, by supporting libraries, the Commission is not supporting one small subset of the population or one portion of our country; rather it is providing support to everyone who needs it, no matter who they are, how old they are, or where they reside in the United States.

America's public libraries are the *One Place For All*<sup>TM</sup> in our communities—hosting more than 1.5 billion in-person visits and hundreds of millions of computer uses each year. The current E-rate proceeding marks a seminal moment in whether and how libraries will be able to close the opportunity gap for residents throughout the country.

The American Library Association (ALA) focuses these reply comments on providing further detail on our “Two-for-One” proposals. Designating a significant percentage of the \$2 billion “down payment” toward these proposals will yield the most productive use of limited funds by immediately improving library broadband capacity while also gathering data and insight that can inform E-rate process improvements related to scalable deployment, network configurations, and state-level economies of scale.

ALA's three demonstration proposals leverage structures already in place but not previously designed specifically for increasing library capacity. The concepts are as follows:

- Scalable technologies deployment program: limited scope broadband deployment leveraging middle-mile infrastructure already in place
- School-library wide area network partnerships: incenting “mini consortia” to maximize use and reduce costs of high-capacity broadband circuits already in place
- Network diagnostics and technical support: identify network barriers and design cost-effective strategies using state-wide structures already in place

When more than 40 percent of libraries function with speeds equivalent to an average home broadband connection, it is essential to put the Commission's down payment to work and make dramatic progress toward the 1 gigabit goal for America's libraries (and schools).

## **II. 21<sup>st</sup> Century Libraries**

### *The E's of Libraries*<sup>TM</sup>

As discussed above libraries provide expert assistance to everyone who seeks it and in

locations throughout the country. The discussion below will focus on the five critical “E’s” the libraries provide and support: education, employment and entrepreneurship, empowerment, and engagement.

### **Libraries Complete Education**

With respect to education, libraries help people of all ages ascend to their maximum potential through learning. In fact, each letter in the word “ascend” provides insight into libraries’ significant involvement with education throughout this country (and the discussion below is just the tip of the iceberg with respect to what libraries do in connection with providing and supporting education):

- A – All educational activities and advancement are supported at libraries
- S – Students are greatly supported with respect to homework and technology access
- C – Continuing adult education is a hallmark of libraries
- E – Early learning is greatly supported at libraries and is important to families
- N – Non-traditional students (e.g., home schoolers, those seeking GEDs) are supported
- D – Digital literacy and traditional literacy training are offered by information experts

After social connections (e.g., connecting with family and friends), education is the foremost use of library internet connections. More than 32 million people use library technology resources to help them achieve their educational goals in a year.<sup>1</sup> These library patrons use library computers to learn about college degree or certificate programs, complete schoolwork and take online classes or complete online assignments.

This educational use is particularly intense for school-age children. Seventy percent of parents report their children use the public library; of these, 77 percent of student library users

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<sup>1</sup> Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries. Samantha Becker, et al. Institute of Museum and Library Services, March 2010. Available, <http://impact.ischool.uw.edu/us-public-library-study.html>.

ages 12-17 use the library for homework. Librarians consistently report this impact is felt on their broadband networks starting at 3:01 p.m. In Douglas, Arizona, for example, this after-school online traffic would literally crash the municipal network the library was on regularly until major network and bandwidth upgrades, enabled in large part through E-rate funding in this predominantly low-income school district, were complete.<sup>2</sup> More than 82 percent of libraries offer online homework resources, including interactive online access to live tutors. One Pennsylvania library director reported holding off purchasing this popular service until bandwidth upgrades were complete to ensure its use didn't interfere with other public access technology use.

Beyond traditional and home schooled K-12 students, though, continuing education is a hallmark of libraries. About 36 million U.S. adults have low literacy, numeracy or digital skills—far more than many other industrialized countries.<sup>3</sup> Libraries are often the place people use to fill these educational gaps. By way of example only, there are more than 100 library literacy programs in California alone, serving more than 100,000 adults and youth.<sup>4</sup>

Thousands of libraries nationwide directly provide preparation for General Educational Development (GED) tests or equivalent education programming—often in partnership with state or local non-profit or government partners. Delaware Center for Distance Adult Learning staff report dozens of people passed GED tests over the past two years through libraries that had been

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<sup>2</sup> Davis, Denise M., John Carlo Bertot and Larra Clark. Libraries Connect Communities: Public Library Funding & Technology Study 2009-2010. Digital supplement of *American Libraries* magazine, June 2010. Available at <http://americanlibrariesmagazine.org/archives/digital-supplement/summer-2010-digital-supplement>.

<sup>3</sup> Time for the U.S. to Reskill? *What the Survey of Adult Skills Says*, OECD Skills Studies, November 12, 2013. Available online: [http://www.oecd-ilibrary.org/education/time-for-the-u-s-to-reskill\\_9789264204904-en](http://www.oecd-ilibrary.org/education/time-for-the-u-s-to-reskill_9789264204904-en).

<sup>4</sup> “Failing to Read Well: The Role of Public Libraries in Adult Literacy, Immigrant Community Building, and Free Access to Learning,” Luis Kong, *Public Libraries Online*, March 19, 2013. Available, <http://publiclibrariesonline.org/2013/03/failing-to-read-well-the-role-of-public-libraries-in-adult-literacy-immigrant-community-building-and-free-access-to-learning/>

upgraded through Broadband Technology Opportunities Program funding.<sup>5</sup> As GED tests move online this year, the bandwidth implications for libraries and their users are significant. This is one of many drivers in our urgent request for dramatically increasing library broadband capacity in the immediate term.

While much attention has rightly been paid to the fact that roughly 30 percent of Americans lack home broadband access, researcher John Horrigan notes that a lack of digital skills is the next great social policy challenge for those interested in equity and the internet. He reports that nearly one in five Americans (roughly 34 million people) that are equipped with home broadband or a smartphone has a low level of digital skills. “More institutions expect people to be online, and many Americans have insufficient levels of digital skills. [Libraries] are the vanguard in the forces we bring to bear to bolster digital readiness. They are both access points for people without broadband at home and information resources for people with service,” he said at a recent hearing by the Institute of Museum and Library Services. “...Investments in additional bandwidth to libraries are critically important to helping all Americans have a chance to translate digital abundance into tools that can open doors to opportunity.”<sup>6</sup>

Nearly all public libraries report offering formal or informal technology assistance, and nearly 7,300 libraries offer technology training classes.<sup>7</sup> This includes classes in general computer and internet use, web searching, software use (e.g., word processing, spreadsheets, and

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<sup>5</sup> See the National Telecommunications and Information Administration *Public Computer Center and Sustainable Broadband Adoption Case Studies, Delaware Public Computer Center Case Study Report Round 2*. Available, <http://www.ntia.doc.gov/report/2014/public-computer-center-and-sustainable-broadband-adoption-case-studies>.

<sup>6</sup> See [http://www.ims.gov/about/broadband\\_hearing.aspx](http://www.ims.gov/about/broadband_hearing.aspx).

<sup>7</sup> Hoffman, Judy, John Carlo Bertot, and Denise M. Davis. *Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012*. Digital supplement of *American Libraries* magazine, June 2012. Available at <http://viewer.zmags.com/publication/4673a369>. (p. 25).

presentations), online job seeking, and social media (e.g., blogging, twitter, Facebook, YouTube).<sup>8</sup>

Bandwidth is even a growing concern for supporting our youngest learners. The Cleveland Public Library, for instance, this year launched 54 Early Literacy Stations<sup>9</sup> as part of a large-scale effort to boost school readiness and strengthen connections with public schools and their students. Library WiFi also supports a growing number of iPad literacy programs for children, parents and caregivers. The iPads are preloaded with interactive books, literacy and educational apps. Coordinating with local schools and supporting early literacy are the top priorities for libraries, according to adults surveyed by the Pew Internet Project.<sup>10</sup> As educational software, devices and applications become more readily available for our youngest learners, robust library WiFi will be in yet greater demand.

It is widely acknowledged that learning does not stop at the school door, at the start of summer break, or upon graduation. Whether it's education for K-12 students, non-traditional students, early learners or adult learners, libraries complete education.

### **Libraries Jumpstart Employment and Entrepreneurship**

The following discussion provides a brief glimpse into what libraries do with respect to employment and entrepreneurship. With respect to employment, as an initial matter, everyday 300,000 Americans get job-seeking help at their public library.<sup>11</sup> Roughly 13,000 U.S. public libraries offer career assistance, including career counseling resources, résumé assistance and help in filling out online applications. In comparison, there are just 3,000 U.S. Department of

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<sup>8</sup> Ibid (p. 26).

<sup>9</sup> See [http://www.slj.com/2014/03/featured/cleveland-public-librarys-literacy-stations-entice-kids-into-thinking-learning-is-play-time/#\\_](http://www.slj.com/2014/03/featured/cleveland-public-librarys-literacy-stations-entice-kids-into-thinking-learning-is-play-time/#_).

<sup>10</sup> See <http://libraries.pewinternet.org/2013/01/22/library-services/>.

<sup>11</sup> How Libraries Stack Up: 2010, OCLC. Available, <http://oclc.org/reports/stackup.en.html>.

Labor One-stop Career Centers.<sup>12</sup>

As a case in point, in Wolfforth (Texas) Library director Kim Brown recently reported that most of her staff's time is spent working with job seekers on library computers. As reported in the *Lubbock Avalanche-Journal*, 10-15 people come in looking on the internet for a job or to print out resumes on the libraries slowest days.<sup>13</sup> The town's Economic Development Corp. is working with the library to assist job seekers in this community of roughly 4,000 people.

Libraries help small businesses and entrepreneurs to build their technology skills as well. Between 2010 and 2012 libraries in New Mexico, for example, offered a Small Business Success Series with classes on internet tools for business to help reduce costs and increase sales and classes on using social media effectively.<sup>14</sup> A study by University of Pennsylvania researchers estimated that the Free Library of Philadelphia provided direct support to local businesses in 2010 worth almost \$4 million in the form of access to business publications and databases, computers and the internet, and business-related programming. That did not include the exponential return to the community in new revenues generated by the 8,700 businesses that the Free Library of Philadelphia aided, as well as the ripple effects of the spending of those businesses' suppliers and employees in the local economy.<sup>15</sup> Libraries are fundamental to ensuring our workforce is ready to compete in the global marketplace.

### **Libraries Foster Individual Empowerment**

Libraries empower individuals by ensuring all people receive what they need. Through

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<sup>12</sup> Ibid.

<sup>13</sup> See [http://lubbockonline.com/frenship-today/2014-04-10/wolfforth-library-edc-share-info-how-team-help-jobseekers#.U1J2y\\_mwLQh](http://lubbockonline.com/frenship-today/2014-04-10/wolfforth-library-edc-share-info-how-team-help-jobseekers#.U1J2y_mwLQh)

<sup>14</sup> Fast Forward New Mexico: <http://www.fastforwardnm.org/training>

<sup>15</sup> *The Economic Value of The Free Library In Philadelphia*, Deborah Diamond and Kevin C. Gillen, Fels Institute of Government, University of Pennsylvania, October 21, 2010. Available, [www.freelibrary.org/about/Fels\\_Report.pdf](http://www.freelibrary.org/about/Fels_Report.pdf).

our services that focus on access to government resources, health information, and social connections, “libraries are the community on-ramp to the world of information.”<sup>16</sup> Just considering government services alone—which increasingly require online interactions—underlying these services are the essential digital inclusion and literacy services libraries offer. Often, an applicant for social services requires a range of computer and internet training and assistance prior to being able to actually use the government services. The library is the community’s free provider of public access to the technology and the librarian and staff provide the training, and assistance.<sup>17</sup> Ninety-seven percent of public libraries help people apply for E-government services and 92% provide assistance in accessing and navigating government websites.<sup>18</sup>

A couple of examples of libraries fostering empowerment came to ALA from libraries in Arizona, including the following:

- Staff at the Cochise County Library District helped a diabetic patron install needed software on a library computer that enables him to regularly send reports of his medical condition to his doctor.
- Library WiFi at the Young Public Library in the Gila County Library District helped U.S. Forest Service fire watchers check fire conditions and incidences.

The Safford City-Graham County Public Library, which logged more than 1.4 million minutes of computer time in one year, helped a local man track down military service information to prove his service time. After more than 30 years of waiting, he is finally receiving

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<sup>16</sup> Prepared Remarks of Tom Wheeler, Chairman, Federal Communications Commission, National Digital Learning Day, The Library of Congress. February 5, 2014. Available, <http://www.fcc.gov/document/fcc-chairman-tom-wheelers-remarks-national-digital-learning-day>.

<sup>17</sup> Hoffman, Judy, John Carlo Bertot, and Denise M. Davis. Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012. Digital supplement of *American Libraries* magazine, June 2012. Available at <http://viewer.zmags.com/publication/4673a369>.

<sup>18</sup> Ibid.

veteran's benefits.

## **Libraries Encourage Community Engagement**

As public spaces where all are welcome, libraries offer people opportunities to meet and socialize with others in their community, whether at a children's story hour, an English as a Second Language class, a technology meet-up, or simply sharing desk space in a reading room. In rural communities where the library may be one of the only public spaces, it is a critical hub for social and civic interaction.

Library technology helps people stay in touch both within the community and outside it. Sixty percent of library computer users in a year reported using library resources to maintain personal connections. Among these users, 74 percent reported using library computers to connect with friends or family, 66 percent communicated with family or friends in the local community, and 35 percent reported connection with family outside of the United States.<sup>19</sup> When it comes to civic engagement, libraries are natural collaborators and conveners to promote individual involvement in local, state, or national issues that affect local life. For example, libraries “convene local groups to consider local issues and teach civic skills.”<sup>20</sup>

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Weaving together these key focus points are the dedicated librarians who are deeply engaged in their communities and experts in matching services to local needs. Libraries connected to scalable, high-capacity broadband are the keystone for economic development, educational achievement, and civic and social participation. Serving everyone—from birth to Medicare Part D—in virtually every community, libraries are the *One Place for All*<sup>TM</sup>.

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<sup>19</sup> Opportunity for All. Available, <http://impact.ischool.uw.edu/us-public-library-study.html>.

<sup>20</sup> See the ALA Center for Civic Life. Available, <http://discuss.ala.org/civicengagement/>.

As noted earlier, the library is the on-ramp to the world of information, but “*now the ramp is at gigabit speeds.*”<sup>21</sup> Updating the E-rate program to allow the dramatic broadband capacity increases libraries need today, is the right long-term investment to benefit residents and their communities across the nation.

*Building on the successful E-rate program*

The record throughout this proceeding is replete with examples of the success of the first 17 years of the E-rate program. ALA concurs. At the same time, the record also firmly supports the Commission prioritizing increasing library and school broadband capacity—immediately. There is much to be done to ensure libraries and schools make significant progress toward the capacity goals laid out in the ConnectED initiative and supported by the Commission, as well as ALA’s specified library goals. ALA remains committed to building on the hallmarks of the original E-rate program to reinvigorate a program to ensure that libraries and schools are ready for the demands of today’s learners and workers, and tomorrow’s innovators and leaders.

*The 21<sup>st</sup>-century library supported by a 21<sup>st</sup> century E-rate program*

ALA’s initial comments for the Public Notice proposed a library capacity goal for the immediate and near-term based on library service area.<sup>22</sup> We take this opportunity to reiterate that we envision 1Gbps for libraries no later than 2018. ALA supports the Urban Libraries Council (ULC) when it aptly states that continuing to make incremental improvements in library capacity likely results in more spending over time rather than focusing on building capacity once

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<sup>21</sup> See [http://www.imls.gov/about/broadband\\_hearing.aspx](http://www.imls.gov/about/broadband_hearing.aspx). Remarks of Tom Wheeler, Chairman, Federal Communications Commission, April 17, 2014.

<sup>22</sup> IMLS currently collects library legal service area at the administrative unit level, but could develop a method for calculating an outlet-level service area for purposes of calculating targets at the building level. Our near-term goal of 100 Mbps for libraries with a service area of 50,000 or less and 1 Gbps for libraries with a service area above 50,000 is but a stepping stone to effectively future proof capacity for all libraries.

now and for the future.<sup>23</sup> A 21<sup>st</sup>-century E-rate program promotes scalable technologies to applicants at affordable rates so where high-capacity broadband is available, applicants are not hampered in subscribing to the speeds they need by unaffordable recurring costs and where it is not available deployment costs do not prevent applicants from seeking greater capacity.

ALA assumes that a gigabit-focused E-rate program will have all of the elements that ensure the broadband is robust at the library door but also throughout the building and to each library-owned workstation and—increasingly critical—to each patron owned device at peak usage times or at anytime a library user requires it. We expect reliable, jitter-free broadband in home and at work. We should expect no less in our libraries—especially for the 62 percent of communities where the library is the only option for free internet access.<sup>24</sup>

Without sufficient, affordable, scalable, high-capacity broadband, too many libraries will fall short of the potential promise they hold for communities across the country. A 21<sup>st</sup> century E-rate program is the key to unlocking all that libraries can offer—for education, for employment and entrepreneurship and to empower and engage individuals and their communities. For these and all of the reasons described above, ALA strongly advocates for an E-rate program that is structured to encourage broad library participation. The proposed demonstrations address some of the key barriers that inhibit libraries from reaching beyond basic connectivity despite the desire to do so.

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<sup>23</sup> See Comments of the Urban Libraries Council. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097287>.

<sup>24</sup> Hoffman, Judy, John Carlo Bertot, and Denise M. Davis. Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012. Digital supplement of *American Libraries* magazine, June 2012. Available at <http://viewer.zmags.com/publication/4673a369>.

### **III. Focus \$2 billion down payment to immediately increase library capacity**

#### “Two-for-One” projects yield immediate benefits and provide long-term efficiencies

To make dramatic progress toward the gigabit goal, ALA supports a concerted focus on reducing the barriers to library participation in the E-rate program while concurrently working to identify “proof of concept” models that yield cost-effective methods to advance broadband deployment where necessary; reduce recurring costs over time; and establish adaptable best practices for network diagnostics and planning. These pilots allow us to learn while keeping the core E-rate program intact to support the recurring costs associated with maintaining high-capacity networks. The E-rate program must be fully resourced and ready to continue its long-successful purpose of ensuring libraries and schools have access to advanced telecommunications services at affordable rates.

#### *Scalable technologies deployment program*

In brief, ALA proposes a limited scale demonstration to determine (and subsequently remove) barriers for libraries to engage in broadband deployment projects. This directly addresses questions posed in paragraphs 24-25 of the Public Notice. We hear from our libraries that incremental increases in bandwidth capacity are not really a long-term solution. The Scranton (PA) Public Library, for example stated the following in this proceeding:

“For us the biggest challenge is that patron demand for bandwidth is always increasing, but we find it difficult to keep up because E-Rate procedures prevent us from responding quickly and because high bandwidth services are unavailable or very expensive at many of our locations. Ideally, there should be a national initiative to deploy fiber to even the most isolated libraries and schools... At current levels, a library likes ours will brag about going from 1.5 MEG to 3 MEG, but the 3 MEG will be insufficient one day after it is installed. This is how fast bandwidth needs are changing. Short of universal 100 MEG, E-Rate needs to be

structured in a way wherein bandwidth can be scaled up very quickly as requirements change.”<sup>25</sup>

While there are a number of estimates of total costs to deploy to all libraries and schools that do not have scalable technologies available to them—including ALA<sup>26</sup> estimates—there are many variables that influence actual costs. For example, Wisconsin is currently in a major project to bring fiber to 360 libraries in the state. While the average fiber cost per library is about \$30,000, it varies considerably from under \$2,000 per site to over \$100,000.

This proposal will provide some specific cost information in addition to other factors that result in better understanding of the “total cost of ownership.” We anticipate that results from this proposal will show that investing in deployment projects that leverage existing middle mile infrastructure lead to cost savings for the applicant as well as a net cost savings for the E-rate program while enabling libraries (and schools) to dramatically increase their capacity at proportionally lower recurring costs. The Quilt, for instance, notes that “Research and Education Networks have been able to construct/build fiber laterals directly to schools and libraries, which has allowed them to lower their rates and provide more affordable broadband services when aggregated on-net to their network infrastructure shared by other community anchor institutions.” An example of this cost-saving is provided in the filing.<sup>27</sup>

We are gratified to see general support for expending a portion of the \$2 billion for targeted deployment from providers, state networks, school groups, and associations.<sup>28</sup> ALA is

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<sup>25</sup> See Comments by the Scranton Public Library Related to the E-rate 2.0 Public Notice. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521096818>.

<sup>26</sup> See ALA reply comments, November 7, 2013. Available, [http://www.ala.org/offices/sites/ala.org/offices/files/content/oitp/publications/officialfilings/ALA\\_E-rate\\_Reply\\_Comments\\_11\\_7\\_2013.pdf](http://www.ala.org/offices/sites/ala.org/offices/files/content/oitp/publications/officialfilings/ALA_E-rate_Reply_Comments_11_7_2013.pdf). Additionally, one state estimate shows \$9-\$20/ft (\$47,500-105,000/mi for buried terrestrial fiber construction).

<sup>27</sup> See for example the Quilt <http://apps.fcc.gov/ecfs/document/view?id=7521097258>.

<sup>28</sup> See especially the comments of Sunesys, LLC. Available,

(continued...)

moving in that direction and would welcome the opportunity to work with the Commission to further develop program criteria.

*School-library wide area network partnerships*

Our enthusiasm for this proposal continues to grow. The potential for cost-performance economies is considerable. As one prominent member of the policy community observed to us, “This is a real no-brainer.” However, there is also the strategic benefit of encouraging schools and libraries to work more closely together—while always a logical collaboration, it makes even more sense in the digital age in which organizational and physical barriers continue to diminish, as information flows increasingly through networks.

ALA continues to investigate the particulars of this proposal, including locating examples of school-library “pairs” that could demonstrate the kinds of cost savings and simultaneous upgrade in library capacity that we anticipate. An eligible library would be within one mile of a school that has broadband capacity of 100 Mbps to 1 Gbps, but the library has significantly lower speeds (as low as 3 Mbps) and proportionally much higher monthly costs. We expect this to be relatively common in rural areas where over half of the libraries have internet speeds of 4 Mbps or less (the equivalent of many home broadband connections) and only 17% of rural libraries have speeds greater than 10 Mbps.<sup>29</sup>

(Continued from previous page) \_\_\_\_\_  
<http://apps.fcc.gov/ecfs/document/view?id=7521097191>. See also comments of the State Educational Technology Directors Association. Available, (<http://apps.fcc.gov/ecfs/document/view?id=7521097294>). Comments of Chicago Public Schools, Chicago Public Library, and City of Chicago. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097330>. Comments of Frontier Communications. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097253>. See comments of AT&T Services, Inc. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097201>. See comments of NTCA-The Rural Broadband Association. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097130/>. See comments of the Missouri Research and Education Network. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097116>.

<sup>29</sup> Hoffman, Judy, John Carlo Bertot, and Denise M. Davis. Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012. Digital supplement of *American Libraries* magazine, June 2012. Available at <http://viewer.zmags.com/publication/4673a369>.

We note that the State of Nebraska's Office of the Chief Information Officer filed comments describing the proposal as a mini-consortium in which the school would receive an additional 5% discount in effect for managing the mini-consortium. This increase in discount according to Nebraska's comments would be sufficient incentive to undertake the project but would also offset any additional costs incurred by the school.<sup>30</sup> Whatever form an incentive may take, ALA believes that the school should receive a definite benefit to encourage participation and offset increased coordination and support costs.

As with the previous proposal, this demonstration proposal leverages existing infrastructure with minimal additional deployment costs and yields likely cost saving to the entire E-rate fund as the library receives significantly higher bandwidth at lower costs. We believe that there will be a number of schools and libraries that would join in these mini-consortia. If this demonstration program comes to fruition, ALA stands ready to promote and encourage participation by the library community.

#### *Network diagnostics and technical support*

One significant obstacle for many libraries, especially small and rural ones, is the lack of support for network diagnostics and IT staff. Without access to such support, many libraries will be unable to plan and manage upgrades for high-speed broadband in a cost-effective manner—even with broadband availability and affordability in place.

Other commenters agree that designing and maintaining networks that are efficient, cost-effective, and scalable for future needs demands technical assistance for both applicant success

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<sup>30</sup> See <http://apps.fcc.gov/ecfs/document/view?id=7521097352>, p11-13. SECA also supports a 5% incentive discount for schools that partner with libraries for the purposes of sharing capacity. See <http://apps.fcc.gov/ecfs/document/view?id=7521096681>, p. 24.

and using E-rate funds wisely.<sup>31</sup> A number of commenters discuss the role of state-level support similar to ALA’s proposed demonstration program that state-wide strategies are more likely to be comprehensive, lead to opportunities for efficiencies at scale, and lead to long-term coordinated planning that effectively meets state and local goals.<sup>32</sup>

For example, the State Educational Technology Directors Association supports state level involvement assessing local planning “for sufficiency, to identify opportunities to scale up demand and reduce costs, and to ensure that the full scope of education needs are being addressed, including those beyond the scope of E-rate (e.g., access to devices for learners and educators; availability of content and software, technical support, and professional development; strategies for off-campus access by learners, etc.)”<sup>33</sup> The Consortium for School Networking also discusses challenges faced by smaller applicants (schools and schools districts) that lack technical support noting that “the absence of universal, high quality technical support is particularly pronounced in the nation’s poorest and most geographically isolated communities.”<sup>34</sup>

ALA’s network diagnostics and technical support demonstration leverages the expertise of the state library agency to develop best practices for addressing local challenges. For example, State library staff in Kentucky, Oklahoma and Colorado have had positive experiences and good local impacts from past efforts to support network assessment and remediation in small numbers of libraries in their states. The Kentucky Department for Libraries and Archives submitted

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<sup>31</sup> See for example NASCIO comments stating that technical assistance and scalable networks for the future are critical to sustaining deployment investments. Available <http://apps.fcc.gov/ecfs/document/view?id=7521096563>, p. 3.

<sup>32</sup> See the comments of the State Library of Kansas. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097417>. Comments of the Oklahoma Department of Libraries. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521092229>.

<sup>33</sup> See comments of the State Educational Technology Directors Association. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097294>.

<sup>34</sup> See comments of the Consortium for School Networking. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097283>.

comments in this proceeding stating, “Kentucky’s public libraries report skyrocketing demands on their wireless networks, with some locations registering several thousand wireless users each month. A pilot project that increases funding for broadband deployment, internal connections and technical assistance could greatly benefit KY public libraries.”<sup>35</sup> The ALA proposal would take the next step to move from local solutions to a more broad-based state-level look at network design, bulk purchasing and other potential state and regional-level consortium opportunities to improve library broadband, as well as cost efficiencies.

Recommendations from the targeted assessments could result in several types of “model networks” and approaches for local libraries to consider in planning for capacity needs, somewhat similar in concept to the ULC proposal to design regional model networks.<sup>36</sup> The United States Telecom Association is also supportive of support for technology planning and proposes “digital template” software that could help determine the parameters of the needed broadband network.<sup>37</sup> ALA does not suggest, however, that any models that may emerge would become proscriptive; rather that the state perspective lends itself well to a coordinated approach, including opportunities for bulk purchasing and other consortia relationships.<sup>38</sup>

#### **IV. Conclusion**

ALA urges the Commission to formalize and launch these demonstration programs as soon as possible. The lessons learned from the demonstrations may then inform changes in the E-rate program to accelerate the progress towards the 1 Gbps goal. ALA appreciates the work of

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<sup>35</sup> See Comments of the Kentucky Department for Libraries and Archives. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097177>.

<sup>36</sup> See Comments of the Urban Libraries Council. Available, <http://apps.fcc.gov/ecfs/document/view?id=7521097287>.

<sup>37</sup> See comments of the United States Telecom Association, pp. 7-8, <http://apps.fcc.gov/ecfs/document/view?id=7521097202>.

<sup>38</sup> Reference Emily Almond: <http://www.districtdispatch.org/2013/09/state-wide-library-consortiums-sure-youre-getting-best-deal/>.

the Commission during this proceeding and looks forward to our continuing collaboration on modernizing the E-rate program.

Respectfully submitted,



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