

Eric Frederick, AICP, LEED AP
Executive Director
Connect Michigan
Libraries and Broadband: Urgency and Impact

The Honorable Susan H. Hildreth and Members of the National Museum and Library Services Board:

Thank you for the opportunity to present today on the impact of high-speed broadband in America's libraries, what's at stake for community development when libraries lack sufficient access, and opportunities to streamline E-rate to better serve library connectivity needs.

My name is Eric Frederick and I currently serve as the Executive Director for Connect Michigan. Connect Michigan is a non-profit organization that works directly with the State of Michigan and in its local communities to increase broadband access, adoption, and use, and empower Michiganders through technology. Since 2009, Connect Michigan has worked with community anchor institutions statewide to aggregate demand and encourage efficient and effective use of online resources for social and economic development. Connect Michigan has utilized a holistic public-private partnership model to identify gaps in broadband service, understand broadband and computer adoption barriers, develop grassroots technology planning teams, and provide technology literacy programs to ensure Michigan's competitiveness in the twenty-first century connected global economy.

As a state subsidiary to national non-profit Connected Nation, Connect Michigan has witnessed first-hand the ongoing connectivity needs of library systems in Michigan and nationwide. From a program in Ohio that mobilized nearly 300 libraries and community colleges in an extensive digital literacy training campaign, to the Connected Community Engagement Program that involves libraries across the country in community technology assessments, Connected Nation has been active in closing broadband access and adoption gaps faced by community anchor institutions nationwide.

Since 2011, Connect Michigan has directly engaged 27 communities through the Connected Community Engagement Program ("Connected") in Michigan. Connected helps communities understand their strengths and weaknesses in broadband – not simply access to broadband, but also adoption and use – develop a local technology action plan, and catalyze community action to address local broadband needs. Connect Michigan has convened 1,300 cross-sectorial community stakeholders including dozens of librarians and broadband providers, in crafting these community plans.

As seen first-hand through our work with Connected, the days when library resources were limited to books and other print materials are long gone – today's libraries serve as clearinghouses for the endless amount of information, tools, and services available on the Internet and catalysts for broadband adoption. Virtually all public libraries in the U.S. offer public access to the Internet (91% of libraries offer Wi-Fi connectivity), and more than ninety percent offer formal or informal point-of-contact technology training.¹ In fact, the services offered by libraries, particularly digital literacy training and community access, are at the core of the Connected program's local broadband assessment.

In Roscommon County in rural mid-Michigan, four libraries serve as the central resources for digital literacy and public technology access. Considered true "gems" in the community, in 2012 alone, these libraries provided training to 3,175 patrons - approximately 13% of the total population of the county.

¹ Public Library Funding & Technology Access Study, *U.S. Public Libraries Weather the Storm*, AMERICAN LIBRARY ASSOCIATION 1, 2 (2012), <http://www.ala.org/research/sites/ala.org.research/files/content/initiatives/plftas/issuesbriefs/issuebrief-weatherstorm.pdf>.

Among the various programs offered, the most popular session is Friday's "Tea and Tech," a program designed for seniors to discuss and learn more about the latest technology. Programs like these are critical to improving quality of life for the population aged 65 and older as Michigan has experienced a 35 percentage point increase in broadband adoption among this demographic since 2010.²

The St. Clair County Library System's eleven local branches offer public library service, widespread wireless access, and 170 computers throughout the county – an especially valuable service in regions where dial-up is the only connectivity option. Focusing on its mission of "Connecting You to a World of Information," on an annual basis, St. Clair County Library System patrons devote over 210,000 hours of computer time to learning new technologies, enhancing education, expanding communication, increasing job opportunities, and more.

Similarly, the Eastern Upper Peninsula Bayliss Libraries became a hub for students to access the Internet once the local school system provided students grades 7-12 with a laptop; however, the vast majority of these students did not have an at-home broadband connection. In communities with active broadband and technology planning teams, Michigan schools with one-to-one device programs are working in tandem with libraries to ensure adequate bandwidth, hours of operation, and capacity to meet the increased community demand for high-speed connectivity.

Libraries across Michigan also contribute significantly to local economic development efforts, partnering with local chambers of commerce and economic development corporations to host website and social media development training for small businesses. Michigan's economy relies heavily on small businesses (those with fewer than twenty employees); however, research has found that Michigan small businesses are less likely to adopt broadband than larger establishments.³ In response, in winter 2013, members of the Luce, Chippewa, and Mackinac County community technology planning teams partnered with libraries and chambers of commerce to train 140 businesses on e-commerce and website development.

Along the same lines, Michigan's harbor communities are greatly dependent on the summer months when local tourism swells. Seasonal tourists on "working vacations" that require ongoing communication with employers via e-mail and cloud computing find the libraries of Michigan's small coastal towns to be ideal secondary offices away from home. Modern technology in these libraries allows visitors to experience Michigan and contribute to the local economy for longer periods of time because they still have sufficient bandwidth to telecommute.

As Connected Nation expressed in its comments on the record,⁴ libraries and schools are leading the broadband conversion across the nation. As broadband transforms American society, libraries have been on the front lines, training youth and adults to use and take advantage of the opportunities available through high-speed Internet and related digital technologies. Already, libraries in Michigan and across the country face packed parking lots, evening crowds, and long queues as patrons await computer availability.

² Sixty-three percent (63%) of the population aged 65+ adopted broadband in 2013, up from 28% in 2010. 2010 and 2013 Connect Michigan Residential Technology Assessments, available online:

<http://www.connectednation.org/residential-survey-data?state=Michigan>

³ "On-site Technology Training for Small, Rural Michigan Businesses," Michigan State University Center for Regional Economic Innovation, Eric Frederick and Elizabeth Riesser, available online:

http://www.reicenter.org/upload/documents/colearning/frederick2012_report.pdf

⁴ Connected Nation, WC Docket No. 13-184, filed Sept. 16, 2013, available at <http://apps.fcc.gov/ecfs/document/view?id=7520944011>.

Despite the enhanced need for library connectivity, substantial high-speed access gaps persist in libraries across the country – the average library has about the same connectivity as the average American home. Moreover, these high-speed broadband gaps are greater in rural areas and among low-income populations who in-turn also have lower rates of home broadband adoption. At a transformative time when education, healthcare, economic development, and all sectors are setting their course and including broadband in a critical role, we risk turning today's broadband gap into a prosperity gap if we don't safeguard high-speed library connectivity.

As a result, the E-rate program must evolve to meet the current and future needs of America's libraries and adapt to libraries' changing role in our communities.

Of the 398 established libraries, library systems, and cooperatives, only 170 (42.7%) applied for priority one E-rate funding in 2014, receiving total commitments of \$2,418,955.⁵ To ensure that libraries receive the high-speed broadband connectivity that they need, and do so in the most cost-effective manner, the Commission could incentivize E-rate funding applications that incorporate comprehensive community broadband assessment and planning processes, similar to those in our Connected program. Such incentive structure could entice E-rate applicants and the communities that they serve to work together on broadband assessment plans, without making those plans mandatory.

Broadband assessment plans under the Connected program convene community leaders across multiple sectors, including libraries, schools, local and county government, economic development, emergency services, healthcare, broadband providers, and others. These multi-dimensional groups are often the first local gatherings of their kind and lead to natural collaborative models of broadband and technology expansion. Connect Michigan's four years of working with communities that strive to address their broadband gaps has taught us that informed, coordinated, and inclusive community planning and engagement with community anchor institutions can often identify strategies for cost-effective broadband solutions.

Clare County in rural mid-Michigan is a prime example of a collaborative planning model. In 2008, multiple county organizations struggled to connect to sufficient broadband infrastructure. While several entities had constructed small fiber networks over the years, many were still left offline. The regional school district, several local governments, the county emergency services department, and two district libraries created a collaborative technology planning group to cohesively address connectivity issues. Today, these organizations, along with nine additional local governments, share a cost-efficient, reliable network. Most recently, this network was expanded and leased by a private-sector Internet service provider to support wireless connections for residents and businesses in the most rural areas of the county. This public-private partnership is responsible for lifting Clare County from being one of the most underserved locales in the state to an area with sustainable broadband connectivity.

Under E-rate, such applications could consider demand aggregation where feasible, explore public-private partnerships, and coordinate with other infrastructure initiatives as part of the community's broader technology plan.

For example, a community plan may indicate that construction of fiber in a particular year is coincident with other infrastructure upgrades in the community (e.g., road construction) that might offer significant cost savings, such as sharing the open trench of the proposed fiber with commercial broadband expansion in the area. Or, perhaps a wireless tower facility is about to be constructed near the library campus. In

⁵ Universal Service Administrative Company, Schools and Libraries Program, Funding Request Data Retrieval Tool, available online: <http://www.slforms.universalservice.org/DRT/Default.aspx>.

these circumstances, applicants and their communities should be encouraged to work collaboratively and even seek out such opportunities that could engender significant cost savings in network construction.

Therefore, when considering the opportunity to streamline and increase efficiency of the E-rate program, deploy high-speed connections to and within libraries, and encourage library-centric programs and services that catalyze community and economic development, we urge the Commission to recognize the value of community-wide planning, and reward E-rate applications that demonstrate a comprehensive broadband assessment.