

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
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Modernizing the E-Rate)	WC Docket No. 13-184
Program for Schools and Libraries)	
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**Comments of
Communications Workers of America**

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The Communications Workers of America (“CWA”) submits these comments in response to the Commission’s Notice of Proposed Rulemaking (“NPRM”) seeking comment on proposals to update the E-rate program of support to schools and libraries.¹ CWA represents 700,000 workers in communications, media, airlines, manufacturing, and public service who have a deep interest in the E-rate program both as workers in the industry and as individuals and family members whose communities are enriched by the support the E-rate provides to their neighborhood schools and libraries.

CWA wholeheartedly supports Commission action to update the E-rate program to bring greater broadband capacity to our nation’s schools and libraries. Since the launch of CWA’s Speed Matters campaign in 2007, CWA has emphasized the enormous benefits of high-speed broadband connections to improve educational opportunities in our schools, and the multiple ways in which schools and especially libraries serve as gateways to Internet access and digital literacy in our communities.² CWA has supported the National Broadband Plan’s recommendation to bring 1 Gbps broadband service to community anchor institutions. We have emphasized that supporting 1 gig capacity to schools and libraries will help bring the full benefit of today’s video-rich applications to students and library patrons, and will also benefit surrounding communities by pushing fiber deeper into neighborhoods, thereby lowering the cost of high-speed broadband service to residential and small business customers.³

¹ *In the Matter of Modernizing the E-rate program for Schools and Libraries*, Notice of Proposed Rulemaking, WC Docket No. 13-184, July 23, 2013 (rel).

² See Speed Matters: Benefits of Broadband, especially “High-Speed Internet and K-12 Education” with National Education Association and American Federation of Teachers and “High-Speed Internet and Libraries” with American Library Association (available at http://files.cwa-union.org/speedmatters/CWA_Benefits_of_Broadbandr_2010.pdf?nocdn=1) and

³ “CWA Launches One Gigabyte Campaign,” 2010 (available at <http://www.speedmatters.org/content/pages/one-gigabyte-campaign>); Federal Communications Commission, Connecting America: The National Broadband Plan,

The E-rate program has been enormously successful. When Congress created the E-rate program in the 1996 Telecommunications Act, only 14 percent of schools had Internet access, mostly through dial-up connections. A decade later, nearly all schools and 94 percent of classrooms had Internet access and 98 percent of libraries offered public Internet access.⁴ The success of the E-rate program demonstrates how public support changed the economics of Internet expansion, allowing schools and libraries throughout our nation to purchase Internet connectivity at affordable rates.

CWA commends the Commission for moving forward in this NPRM with proposals to update the E-rate program for the 21st century. The goals are clear. As the State Educational Technology Directors Association (SETDA) has noted, K-12 schools need an Internet connection in the near-term of at least 100 Mbps per 1,000 users growing to 1 Gbps Internet access per 1,000 users by the school year 2017-18. SETDA also recommends that school districts have Wide Area Network (WAN) capacity of at least 10 Gbps per 1,000 students connecting schools and administration buildings by school year 2017-18.⁵ President Obama's ConnectED initiative calls for 100 Mbps increasing to 1 Gbps for every 1,000 users in schools within five years.⁶ Cisco's recommendations are even more ambitious: connectivity of 1 Gbps per 2,000 students (or 0.5 Mbps per student) today; 4 Gbps per 2,000 students (or 2 Mbps per student) by 2018; internal

2010, p. 4. ("Goal No. 4: Every American community should have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals and government buildings.")

⁴ NPRM, p.3 citing U.S. Department of Education, National Center for Education Statistics, Internet Access in U.S. Public Schools and Classrooms: 1994-2001 (2002); U.S. Department of Education, Institute of Education Sciences, Internet Access in U.S. Public Schools and Classrooms: 1994-2005 (2006) ; Information Use Management and Policy Institute, College of Information, Florida State University, Public Libraries and the Internet 2006: Study Results and Findings, at 7 (2006).

⁵ NPRM, p. 11 citing State Educational Technology Directors Association, The Broadband Imperative: Recommendation to Address K-12 Educational Infrastructure Needs, p. 2 (2012) ("SETDA Recommendation").

⁶ NPRM, p. 4 citing The White House, Office of the Press Secretary, ConnectED: President Obama's plan for

district and school connections of 5 Gbps today and 20 Gbps by 2018. Cisco recommends higher goals for areas with last-mile fiber infrastructure today, essentially doubling the benchmarks.⁷

The State Library of Kansas recommends that all libraries have a minimum of 1 Gbps Internet connectivity by 2020, with greater capacity for libraries with a large number of online users.⁸

Unfortunately, the Internet connections in most schools and libraries fall far short of these benchmarks, and as a result a significant number of schools and libraries cannot meet the demands for Internet connectivity today, much less going forward. As the Commission learned in its 2010 survey of E-rate funded schools and libraries, only 10 percent reported broadband speeds of 100 Mbps or greater, while 48 percent reported speeds of less than 10 Mbps. About 39 percent of respondents cited cost of service and 27 percent cited cost of installation as a barrier.⁹ The American Library Association (ALA) annual survey found that only nine percent of libraries reported connections speeds greater than 100 Mbps, and 25 percent of libraries still have speeds of 1.5 Mbps. A full 41 percent of libraries reported that their speeds fail to meet their patrons' needs some or most of the time.¹⁰

As the Commission moves forward in the modernization of the E-rate program, CWA supports the following broad principles for reform:

Connecting All Schools in the Digital Age (“ConnectED Fact Sheet”).

⁷ Cisco, High-Speed Broadband in Every Classroom: The Promise of a Modernized E-Rate Program, Sept. 2013 (“Cisco White Paper”).

⁸ NPRM, p. 11 citing Letter from Karen Archer Perry, Senior Program Officer, U.S. Libraries Program, Bill & Melinda Gates Foundation, to Ms. Marlene Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90, Aug. 2, 2011.

⁹ NPRM, p. 4 citing Federal Communications Commission, 2010 E-Rate Program and Broadband Usage Survey: Report, 26 FCC Rcd 1.

¹⁰ NPRM, p. 4 citing American Library Association, Libraries Connect Communities: Public Library Funding & Technology Access Study, 2011-2012, *American Libraries Magazine* (summer 2012).

1. *The Commission should ensure adequate funding for the E-rate program and target E-rate support on high-capacity broadband connections.* The Commission notes that E-rate funding requests have consistently exceeded available funding, currently capped at \$2.38 billion, and the trend is expected to continue in 2013. The Commission explains that the growth in funding requests is largely driven by growing demand for higher bandwidth connections.¹¹ Therefore the Commission should target E-rate support on high-speed broadband connections, phasing down support for non-broadband services such as voice-only telephony.¹² CWA supports making broadband deployment upgrades a priority before funding recurring costs, supporting fiber deployments, and shifting the focus of the program to funding integrated networks rather than discrete services.¹³ Given limited funding, the Commission's original rationale for excluding from priority service the costs of modulating electronics to light dark fiber networks and "special construction charges" on those networks should remain in effect.

2. *The Commission should establish high-capacity connectivity metrics for E-rate supported schools and libraries.* The Commission should adopt the SETDA and ConnectED targets for school system connectivity of 100 Mbps increasing to 1 Gbps per 1,000 users and Wide Area Network (WAN) of 10 Gbps per 1,000 users as *minimum* benchmarks for school connectivity. The Commission should also adopt the more ambitious Cisco goals of 2 Gbps per

¹¹ In 1997, the Commission capped E-rate funding at \$2.25 billion. In 2010, the Commission allowed the cap to increase with inflation. The cap in 2013 was set at just over \$2.38 billion. Every year, requests for priority two services (internal connections) have exceeded demand, and in 2012 demand for priority one services (telecommunications and Internet access) for the first time also exceeded demand. Requests for 2013 for telecommunications and Internet access services are projected to reach \$2.709 billion, exceeding the cap. NPRM para 58-63.

¹² In funding year 2011, there were more than 37,000 requests for local and long distance telephone services, amounting to about \$260 million in funding commitments; 500 requests for paging at almost \$1 million, and an additional \$176 million for cellular service. NPRM, para 106.

¹³ *Id.* 24. See also Cisco White Paper, p.5 and 39.

2,000 users increasing to 8 Gpbs per 2,000 users in 2017-18 and WAN connectivity of five times that amount in communities in which last-mile fiber has already been built.¹⁴ The Commission should establish high-capacity benchmarks for libraries and create a program measuring the speeds of schools' and libraries' broadband connections against its targets as one metric of broadband availability and affordability.

3. *The Commission should use the E-rate as part of a larger program to spur investment in high-capacity networks, and coordinate E-rate funding with the Connect America Fund.* By lowering the cost of high-speed broadband deployment to anchor institutions, the Commission can change the economics of broadband expansion to surrounding homes and businesses as well. We have an urgent need to incent public-private partnerships to increase build-out of our nation's high-speed networks. The U.S. ranks 33rd in the speed of our broadband networks, behind South Korea, Japan, Germany, Russia, France and even Romania.¹⁵ A digital divide is growing between those individuals, businesses, and communities with access to competitive high-speed networks and those with little or no choice for high-capacity connectivity. In fact, according to the Commission's latest *Internet Access Services* report, half of all U.S. households' (53 million) connect to the Internet at speeds that do not even meet the Commission's definition of broadband.¹⁶ Therefore, E-rate support that brings fiber to anchor institutions can also serve to change the business case and increase high-speed deployment to

¹⁴ The Cisco recommendations of 1 Gbps for every 2,000 students today and 4 Gbps for every 2,000 students by 2018 is an appropriate target for many school districts. *See* Cisco White Paper; SETDA Recommendations; ConnectED Fact Sheet.

¹⁵ *See* speedtest.net (visited on Sept. 16, 2013).

¹⁶ The Commission defines broadband as Internet connectivity at speeds equal to or greater than 4 Mbps downstream, 1 Mbps upstream. Yet, 53 million households Internet connection speed is less than 3 Mbps downstream, 768 kbps upstream. Only 1/3 of all Internet connections deliver downstream speeds greater than 6 Mbps, and only five percent (11.9 million connections) deliver speeds greater than 25 Mbps. *See* Federal

neighboring homes and businesses. It may be possible to link E-rate support with the Connect America program to lower the cost of deployment in unserved and underserved communities, thereby improving the economics of broadband and making more efficient use of universal service funds. Public-private partnerships also play an important role in the development and implementation of cost-effective programs that aggregate demand to spur investment in high-speed broadband.

The E-rate program has been one of the great success stories flowing from the Telecommunications Act of 1996, opening access to the unlimited information and resources on the Internet to students and library patrons in almost every community across this nation. Building on this success by ensuring adequate E-rate funding, targeting resources to expand broadband capacity, establishing realistic yet aggressive metrics to bring a minimum of 1 Gbps capacity to our schools and libraries, and using the E-rate to change the economics of widespread broadband deployment represent important steps forward in building next-generation public-private initiatives to upgrade our communications networks serving schools, libraries, and all Americans.

Respectfully Submitted,



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