

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

In the Matter of	)	
	)	
Schools and Libraries Universal Service	)	CC Docket No. 02-6
Support Mechanism	)	
	)	
A National Broadband Plan	)	GN Docket No. 09-51
For Our Future	)	

**COMMENTS OF MOTOROLA**

Motorola, Inc. (“Motorola”) respectfully submits these comments in response to the Notice of Proposed Rulemaking (“NPRM”) in the above-captioned proceeding. Motorola has partnered with schools and libraries for many years to provide technology services and tools that improve and enhance the educational experience. Its experience with the E-rate program provides Motorola with a unique perspective on the benefits and limitations of the current E-rate program rules. Motorola applauds the Commission for embracing the education potential that broadband can bring to today’s students and welcomes this opportunity to comment upon the Commission’s proposed changes to the E-rate program.

**I. WIRELESS INTERNET SERVICE SHOULD BE AVAILABLE OUTSIDE OF SCHOOL OR THE LIBRARY.**

Teachers in K-12 schools are harnessing the power of the Internet to enrich the learning experience for today’s students. They post online study guides and educational web resources for students to be used in completing homework, research papers and preparing for tests.<sup>1</sup> These online tools are a valuable resource not only for students, but

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<sup>1</sup> See Township High School, District 214 located in the suburbs of Chicago, Illinois, [http://www.d214.org/educational\\_services/research\\_help\\_big6.aspx](http://www.d214.org/educational_services/research_help_big6.aspx), (providing

for parents striving to stay connected with their children’s education experience. They extend the educational benefits of study hall, the school library or parent teacher conferences to the home. Teachers use school websites and email to reach out to parents with information about assignments, grades and more generally to open a dialogue about their child’s education. These educational tools and resources are not devalued when accessed while off of school or library premises. Rather, their value, usefulness and effectiveness increases because they are used with greater frequency.

Motorola encourages the Commission to look beyond the “traditional” student uses of online educational resources to consider how wireless Internet access outside the school boundaries will bring these resources to the community that supports K-12 students. If Internet access were made available outside the confines of a school or library – with their limited hours of operation – parents and care-givers would have greater access to the Internet and more opportunity to take advantage of the education resources available online, such as an online language or literacy class or access to parenting resources or study guides so they can help their children with homework. Bringing a conduit for this information into the community will enhance the traditional educational experience of K-12 students.<sup>2</sup>

The Commission is correct that certain procedures or policies should be in place to guard against waste, fraud or abuse of connectivity for non-educational purposes.

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guidance for research papers) and [http://www.d214.org/district\\_library/homework\\_help.aspx](http://www.d214.org/district_library/homework_help.aspx) (providing homework help resources).

<sup>2</sup> See NPRM at fns 106 and 108 (discussing studies performed in Maine and Virginia whereby laptops were distributed to students for home use, and the resultant improvement in test scores).

However, Motorola would caution the Commission against adopting policies that are too onerous to schools, libraries or the users of the Internet access service, such that these institutions or individuals would choose either not to seek E-rate funds or use the Internet service.

Finally, while Motorola encourages the Commission to provide E-rate funding for wireless Internet access to portable devices located off of school or library property, this funding should be limited to the cost of connectivity and be secondary to funding for wireless internet connections on school property. Funds should not be diverted from their primary purpose of supporting and enhancing education on school and library premises in order to “connect” the surrounding communities.

**II. DARK FIBER SHOULD BE ELIGIBLE FOR E-RATE FUNDING WHEN IT IS THE MOST COST-EFFECTIVE MEANS TO OBTAIN BROADBAND SERVICES.**

In order to speed the deployment of broadband into schools and libraries, E-rate participants must be given the flexibility to make wise decisions based on a reasoned analysis of their technology needs, geographic restrictions and cost. For too long, E-rate participants have made decisions driven solely by whether the service or equipment was listed as “eligible for funding” on the Eligible Services List, rather than whether the service was the most efficient and effective means to bring connectivity to the school or library. Motorola supports the Commission’s proposal to allow E-rate participants to use Priority 1 funds for the lease of fiber, even if unlit, from third parties that are not telecommunications carriers.

**III. THE COMMISSION SHOULD EXPAND E-RATE FUNDING FOR NON-EDUCATIONAL BUILDINGS WHERE THERE IS A VALID EDUCATIONAL PURPOSE.**

Motorola supports the expansion of E-rate funding to non-instructional buildings where the school can demonstrate an educational purpose for that building. Motorola would, however, encourage the Commission to evaluate funding requests more broadly than the narrow example cited in the NPRM and expand the eligibility for E-rate funding to non-educational buildings if the functions served by the building are necessary and proximate to the education purpose.<sup>3</sup> For example, an off-site building housing teacher offices or used for parent-teacher conferences should qualify for funding.

**IV. THE COMMISSION SHOULD RE-EXAMINE THE PRIORITY OF E-RATE FUNDING TO TARGET THOSE SERVICES AND EQUIPMENT THAT SUPPORT BROADBAND SERVICES.**

Technology has become an integral part of today's learning experience. Students take tests online, conduct research online and use online study guides. Without high speed connections, online educational resources are a wasted investment. The online tools and resources used by students and teachers are becoming more complex and network dependent. Without a broadband network, the capabilities of these resources cannot be fully realized. Motorola strongly supports the Commission's proposal to give priority to those E-rate funding requests that support higher bandwidth connectivity and remove funding for legacy services, such as dial-up.

Motorola further encourages the Commission to expand the scope of its proposed review to look beyond the use of primarily fiber or legacy T-1 lines. For schools and libraries to realize the full value of online educational resources, E-rate funding should be

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<sup>3</sup> See NPRM ¶55.

authorized for other wireless broadband technologies, such as point-to-point and point-to-multipoint systems. In many areas, particularly rural areas and dense urban locations where existing infrastructure obstructs the deployment of new fiber, the use of these alternative technologies is the most effective means of providing broadband access to a school.

For example, under the current rules, Priority 1 funds can be used to fund WAN broadband connectivity over the public right of way only when the network is leased from a service provider. The same network, if owned by the school or library, would be ineligible for E-rate funds. Although owning the WAN would be more cost-effective for some applicants than a month-to-month lease of the same network, under the current rules, applicants do not have the luxury of this consideration. Rather, schools and libraries must give the greater weight to the fact that if the network is leased, they can receive Priority 1 funds for it.

This disconnect in the E-rate funding rules also ignores the reality of how a school or library obtains funding to pay its portion of the cost of the equipment or service. Connectivity that is classified as a service with a recurring monthly charge would be funded through the school or library's operating budget. While connectivity obtained through the purchase of equipment would be funded through the capital budget. Although operating budgets in school districts and county governments are being ruthlessly slashed in this era of budget constraints, many capital budgets remain relatively intact. The E-rate program rules, therefore, should be revised to provide schools and libraries with the flexibility to choose the best mechanism to access wireless broadband services. Although the means may differ, the end result is the same; the school or library

would have cost-effective access to high-speed broadband. Therefore, Motorola encourages the Commission to consider a further revision to the E-rate rules to allow the purchase of wireless broadband equipment for wide-area connectivity across the public right of way using Priority 1 funds, when that is the most cost-effective means of bringing wireless broadband to a school or library.

**V. PREDICTABILITY IS KEY TO THE EFFICIENT USE OF E-RATE FUNDS.**

Motorola agrees with the Commission's goal to bring greater predictability to the funding of Priority 2 funding requests and to expand the reach of that funding to more schools. As currently structured, the E-rate program has very effectively provided schools with the funding needed to bring high speed broadband and Internet Access to the school building through the use of Priority 1 funding. But because of the restrictions placed on Priority 2 funding – both with respect to the demographic makeup of eligible schools and to the frequency the school may apply for funding – the E-rate program has been far less effective in providing schools with the ability to carry that broadband and Internet Access into the building and the classroom. The result, in many schools, is a strong WAN backbone and a weak LAN infrastructure. With the growing need for delivery of dynamic digital content to students and use of devices in classrooms, it is critical for this imbalance to be corrected which is only possible through restructuring Priority 2 funding.

Consistent with the Commission's proposal, Motorola supports the (i) adoption of a flat per student cap per school district, (ii) a set aside for internal connections, (iii) the elimination of the 2-in-5 rule, (iv) prioritizing the funding of internal connections over

funding for basic maintenance, and (v) requiring schools to file for E-rate funding by district.

The E-rate program when adopted 12 years ago was an impetus to schools and libraries to incorporate technology into their educational programs. However, the success of the program is now an impediment to its mission, with too few schools and libraries receiving too much of the limited funds.<sup>4</sup> Therefore, Motorola supports the Commission's proposal to restructure the distribution of E-rate funds to ensure more schools and libraries can receive a piece of these essential funds. Motorola encourages the adoption of a per student cap in order to distribute E-rate funds for Priority 2 services more equitably among more schools.

The current funding mechanism leaves too few schools with no funding for internal connections – Priority 2 funds. Motorola supports the Commission's proposal to set aside a certain defined amount of funding for Priority 2 requests prior to funding Priority 1 requests. This will encourage a more equitable distribution of funds to more schools, thus bringing the benefits of technology to more students nationwide.

Motorola supports the Commission's proposal to eliminate the 2-in-5 rule. While the motivation for the adoption of this rule was laudable, in practice the rule has not been effective in ensuring more schools were able to access the coveted Priority 2 funds.

Today's online and electronic educational applications require a rich, robust broadband network in order to realize the full potential of the educational tools. While maintenance of the hardware necessary to support these applications is important,

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<sup>4</sup> See NPRM ¶¶62, 64.

Motorola supports the Commission's proposal to give funding priority to internal connections before funding for maintenance of those connections. Motorola does not support the complete elimination of funding basic maintenance from the E-rate program, however, it strongly supports placing funding of Priority 2 requests before funding for basic maintenance.

District-wide applications are a more efficient use of the E-rate process. School districts can use one "grant-writer" to prepare a district-wide application rather than pulling resources from individual schools. Moreover, the district can realize economies of scale in bidding and negotiating contracts unavailable to individual schools. Finally, an allocation by district allows the school district to make more efficient decisions as to how to deploy E-rate funds. Rather than concentrating all E-rate funds in those schools with the greatest discount percentage, districts can make more reasoned decisions as to which schools require what services and equipment.

Finally, Motorola supports the Commission's proposal to index the E-rate funding cap to the rate of inflation and to maintain the funding cap at the previous year's level during periods of deflation. This proposed change will benefit E-rate program participants by increasing the funds available to services and equipment and increasing predictability of funding.

**VI. CONCLUSION.**

Motorola commends the Commission for proposing necessary changes to the E-rate program in order to make it an effective vehicle to encourage broadband deployment in America's schools and libraries. Motorola supports these efforts as set forth in these comments.

Respectfully submitted,

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