



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

In the Matter of)	CC Docket No. 02-6
Draft Eligible Services List)	GN Docket No. 09-51
For schools and libraries)	WC Docket No. 13-184
Universal Service Program)	

COMMENTS OF
THE NEW YORK CITY DEPARTMENT OF EDUCATION
ON
THE DRAFT ELIGIBLE SERVICES LIST
FOR THE SCHOOLS AND LIBRARIES UNIVERSAL SERVICE PROGRAM
FOR FUNDING YEAR 2016

Background

The New York City Department of Education (NYC DOE) encompasses approximately 1,800 individual school organizations and administrative facilities located in about 1,300 buildings. In this setting, more than one million students are taught every day. Meeting the instructional technology needs of such a large student population is often daunting. Adding to the obvious challenges related to a school system of this size are the realities of maintaining a network infrastructure in an aging portfolio of school buildings. More than 75% of the school buildings are over 40 years old and approximately 31% were built before 1930. Building and sustaining a network infrastructure that provides wireless Internet access to more than 597,000 computing devices in so many different locations is a significant logistical and financial challenge for the NYC DOE.

Second E-Rate Modernization Order

The schools and libraries universal support program (more commonly known as the E-Rate program) enabled the NYC DOE to radically transform the school's technology environment and allows students and educators to access the resources of the Internet for assessment, instruction and enrichment. The landmark *E-Rate Modernization Order*, adopted by the Federal Communications Commission (FCC) in July 2014, takes major steps to modernize and streamline the E-Rate program by focusing on expanding funding for Wi-Fi networks. The *Second E-Rate Modernization Order* (Second Order), adopted by the FCC in December 2014, takes steps to further modernize the E-Rate program by increasing the funding cap from approximately \$2.3 Billion to \$3.9 Billion, equalizing the treatment of lit and dark fiber and by providing support for the upfront, non-recurring costs for special construction projects associated with bringing broadband connectivity to schools and libraries.

The Wireline Competition Bureau seeks comment on a draft eligible services list (ESL) for the E-Rate program for Funding Year 2016 (FY 16). NYC DOE believes that the draft FY 16 ESL reflects the goals of the Second Order and is conducive to providing schools and libraries with the technology and connectivity that meets their requirements.

Special Construction Funding

For projects requiring special construction charges, NYC DOE agrees with the Second Order in its decision to make payment options more flexible. The suspension of the requirement that schools and libraries amortize the hefty non-recurring charges for Category One projects will hopefully encourage a larger number of diverse vendors to bid on special construction E-Rate projects. NYC DOE believes the proposed change will provide a greater certainty to applicants knowing they can recover E-Rate eligible portions of such projects' non-recurring costs upfront. In addition to the proposed amortization rule changes, the Second Order proposes that applicants be allowed to pay the non-discounted share of Category One special construction charges over a period of four years rather than having to pay the entirety of an applicant's share in a single year. NYC DOE concurs with the Second Order's statement that changes to special construction funding requirements will provide incentives to schools and libraries to undertake infrastructure construction projects that may have previously been out of reach due to limited budgets.

Access to Low Cost Fiber

NYC DOE applauds the proposed change to expand E-Rate funding eligibility by equalizing the treatment of lit and dark fiber. Eliminating funding disparities between the two broadband

options will help drive down costs for broadband service in both unserved and underserved areas. Finally, NYC DOE supports the FCC’s decision to make the modulating electronics necessary to transmit data over dark fiber networks eligible for Category One funding.

Proposed Funding Year 2015 Eligible Services List

Basic Maintenance

The draft FY16 ESL indicates that Basic Maintenance support is limited to “the actual work performed under the agreement or contract [emphasis added].” However, in FCC DA 10-2355, paragraph 6 contained the statement that “We further clarify that reimbursement is permitted for some other types of BMIC without an applicant having to demonstrate that work was performed [emphasis added].” The NYC DOE seeks clarification on the rule for Basic Maintenance eligibility due to the apparent conflicting statements in the draft FY16 ESL and FCC DA 10-2355; does the FCC allow for certain exceptions to the requirement for applicants seeking Basic Maintenance support to demonstrate that ‘actual work was performed’?

Eligible Hardware

The NYC DOE requests clarification from the FCC on Category One E-Rate funding for equipment necessary for dark fiber broadband connectivity. The language within the draft FY16 ESL states that Category One support for dark fiber costs includes “monthly charges, special construction, modulating electronics, equipment necessary to make a broadband service functional, and maintenance and operation charges [emphasis added].” NYC DOE requests clarification on the following:

- 1) What hardware is the FCC classifying as modulating electronics?
- 2) What hardware is the FCC classifying as equipment necessary to make a broadband service functional?

NYC DOE seeks clarification on what the FCC considers to be equipment necessary to bring broadband connectivity to schools and libraries by posing the following comments and clarifying questions:

- 1) Network Switches at the access, distribution and core layers – NYC DOE considers the type of network switches to be integral to the creation of a broadband network and should therefore be classified as Category One supported hardware. For clarification purposes, are switches associated with Storage Area Networks (SAN) eligible for E-Rate

support? The ESL made no mention of this type of switch and the DOE would like clarification from the FCC.

- 2) Device management servers used to manage large numbers of various network device types (switches, routers, etc.) – Are device management solutions (hardware and software) eligible for E-Rate support? The tools allow administrators of large, self-managed networks to efficiently make configuration changes and provide troubleshooting support from a central console and serve a key role in the management of large, complex networks.
- 3) Network performance reporting servers –Are reporting solutions (hardware and software) that gather and display data on network performance (bandwidth, web application usage, etc.) eligible for E-Rate funding? Reporting tools allow administrators to manage their network usage to ensure that no user or users are using more bandwidth than is necessary.
- 4) Firewalls – Are devices which provide security services similar to those provided by traditional hardware firewalls, such as access control policies, eligible for Category Two funding through E-Rate? Examples of the devices include:
 - Traffic Managers
 - Service Gateways
- 5) Application Delivery servers – For the schools and libraries hosting enterprise applications, are application delivery servers eligible for E-Rate funding? The servers provide fast and uninterrupted access to any educational applications hosted within a school or library’s network.

To ensure applicants receive funding for all appropriate infrastructure hardware, NYC DOE requests that the FCC respond to the comments and questions posed in this document. The NYC DOE also requests that the FCC provide within the ESL a detailed list of the eligible equipment for Category One and Category Two support to eliminate any ambiguity regarding what is, and is not, eligible for E-Rate funding.

Conclusion

The E-Rate program is accelerating positive changes in the school learning environment. At the time of the program’s inception, classroom connectivity in this country to the Internet was rare in availability and limited in capacity. Today, classrooms without Internet access are the exceptions and students in the earliest grades are regularly using a diverse universe of Internet-based educational resources. Building and maintaining the necessary infrastructure for Internet access without E-Rate funding would present insurmountable fiscal obstacles to many school

districts. NYC DOE believes that changes to funding requirements for special construction and the equalization of lit and dark fiber options will help to drive down costs for broadband connectivity by increasing competition in both urban and rural areas. Finally, NYC DOE respectfully requests the FCC include additional details in the Funding Year 2016 and subsequent Eligible Services Lists to clearly identify the types of hardware eligible for E-Rate support.