

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

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

**COMMENTS OF FAIRFAX COUNTY PUBLIC SCHOOLS**

*in response to*

Notice of Proposed Rule Making

*Modernizing the E-rate  
Program for Schools and Libraries*

Fairfax County Public Schools (FCPS) is located in Fairfax County, Virginia, in the metropolitan Washington D.C. area. The county has a population of over 1,000,000 residents living in an approximately 400 square mile area. FCPS serves approximately 185,000 K-12 students, over 14 percent of all students in the Commonwealth of Virginia. FCPS is the largest school division in Virginia and the eleventh (11<sup>th</sup>) largest in the nation, by enrollment. Currently, there are 196 schools and centers in the district. For more information about FCPS, visit the website at <http://www.fcps.edu>.

The continuous availability of sustained telecommunication and Internet connectivity is mission critical to the business of educating the students of FCPS.

All FCPS buildings utilize the enterprise voice infrastructure for vital contact with parents, the community, other schools and offices, and business partners. Increasingly, new and emerging unified communication features and functionality continue to be integrated into everyday business interactions, with the Public Switched Telephone Network (PSTN) and Internet connectivity being pivotal components.

The success of online-based instructional textbooks and materials, state-mandated online SOL testing, collaborative learning environments, and Learning Management Systems are contingent upon FCPS' reliable connectivity to the Internet.

FCPS' enterprise voice architecture utilizes a combination of centralized Session Initiation Protocol (SIP) trunks and POTS (Plain Old Telephone Service) circuits to provide connectivity to the Public Switched Telephone Network. Approximately 4,000 concurrent SIP sessions and more than 1,500 POTS lines are in use today to meet the demands of our district.

Dedicated Internet access is currently provided at FCPS' two data centers with an aggregate total bandwidth of 3 Gbps, with each of the two links connected to different Internet Service Providers in order to maintain business continuity. Behind the firewall, FCPS maintains an immense Metropolitan Area Network (MAN) and more than 200 robust and interconnected Local Area Networks (LAN).

Below is a list of the major changes FCPS would like to see with E-rate Reform.

1. FCPS proposes the overall funding cap be increased to accommodate the needs of all eligible schools and libraries. Current budgets for our school system are unable to support the necessary expenditures required to meet our ever increasing student population and bandwidth requirements for access to high-speed broadband and wireless web access.
2. FCPS supports simplification of application and forms. The initial application process of Form 471 is cumbersome and requires tremendous amounts of support staff labor hours and E-rate consultant expenses. The review process of individual invoices for form 472 (BEAR) reimbursement submittals requires support staff labor hours. FCPS proposes E-rate vendors be required to flag line items on invoices as to whether or not they are E-rate eligible charges.
3. FCPS supports a per-student funding solution to ensure that available funds are distributed more equitably. FCPS proposes that the per-student limit be multiplied by school's discount level, which would take into account neediness. FCPS supports continuing to use Free and Reduced meal counts, as is used for funding calculations in the current program.
4. FCPS proposes the elimination of the priority system because it prevents schools from deciding for themselves how to best use E-rate funds. FCPS has not received funding for priority two since 2002, but has a tremendous need. Over the past several years, there has been a shift in technology expenses. Costs to build the infrastructure for a school system as large as FCPS have been increasingly demanding. FCPS will need funding for Priority 2 services to meet President Obama's goal of providing 99% of the schools access to high-speed broadband and wireless web access within five years, calling for an increase in per 1000 student bandwidth to 100 Mbps immediately and to 1 Gbps by 2018. FCPS is moving toward online-based instructional textbooks and materials and with state-mandated online SOL testing, bandwidth increase is essential.
5. FCPS supports the existing eligible services framework and list. Because of the differing technology needs of individual schools and given the ongoing changes in technology, it is important that the FCC maintain a technology neutral eligible services list that does not impose specific service or design limitations on applicants.

6. FCPS supports exploring ways to fund access to broadband for students at home. FCPS has approximately 12,588 students who do not have home Internet access. Currently, FCPS supports several locations to provide Internet access to students at off-site locations. These locations provide educational support to our parents and students. However, these sites are not E-rate eligible because FCPS does not own/lease the building.

FCPS, like many other school districts around the nation, strives to create 21<sup>st</sup> century learning environments in which students effectively collaborate with not only peers within the school system, but also from around the world. In an effort to promote this type of learning, a "Bring Your Own Device" (BYOD) program was established in which both Intra and Internet access is provided for student and staff-owned computing equipment.

Consequently, FCPS is required to support 200,000+ users, more than 100,000 devices that connect to the FCPS network daily, 4,800 network switches, 225 wireless access controllers, and in excess of 10,000 wireless access points while maintaining the security of the student information. In order to keep up with the short technology lifecycles of today and ever-increasing demands for more throughput, FCPS continues to replace, repair, and repurpose this supporting networking infrastructure as quickly as budget cycles allow. However, FCPS falls far short of accomplishing this goal and struggles to keep the gap from expanding.

Parallel to the demand for the throughput is the increasing demand for the confidentiality, integrity, and availability of student data. FCPS continues to invest in technical, administrative, and physical safeguards to afford student information the appropriate level of protection.

Currently, the total Internet bandwidth capacity for FCPS is 3 Gbps, to be shared among the more than 184,000 students. This results in a present-day ratio of just 16.3 Mbps per 1,000 students. To reach the immediate 100 Mbps per 1,000 student target benchmark, FCPS would need more than six (6) times the existing allocation and have to procure 18.3 Gbps of total ISP connectivity. Consequently, to obtain the 2018 objective of 1 Gbps for every 1,000 students would necessitate sixty (60) times of today's resources. Without a major overhaul of E-rate funding formulas, FCPS will not be able to comply with these standards.

For FCPS, and all of the K-12 school systems around the country, to be able to effectively instruct and equip our students for not only higher education, but for the digital world in which we live today, a meaningful effort must be put forth to identify new funding and resources. To ensure that the creativity and imagination of our students are not stifled both in the classroom and at home, we must work together to find a means of safeguarding our students' global competitiveness in a digital age. Modernization of the E-rate program is a critical step in closing the digital divide.