

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

In the Matter of )  
 )  
Federal-State Joint Board on Universal Service ) CC Docket No. 02-6

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Federal Communications Commission  
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**Comments on the Eligible Services List for Universal Service Mechanism  
for Schools and Libraries, Released August 13, 2004**

Funds For Learning, LLC, is an educational technology consulting firm that has focused its practice on the E-rate program since the program's inception in 1997. We work with schools and libraries, providing a wide range of services, including assistance with application preparation, the processing of payment-related paperwork, and support through the post-commitment auditing process. In addition, we provide a variety of independent consulting services to help companies understand the program's rules and requirements and communicate them within their organizations and to their customers. We were privileged to participate in the Federal Communications Commission's May 2003 Forum on the E-rate program and the Schools and Libraries Division's Task Force on the Prevention of Waste, Fraud and Abuse.

We commend the Commission for taking steps last December to try to ensure that the Eligible Services List for the coming funding year was issued in final form before the start of the application window. Accordingly, the Commission directed the Universal

Service Administrative Company to deliver its draft list to the Commission by June 30, 2004, so that it can be issued in final form at least 60 days before the opening of the filing window. We are disappointed, though, that such a short amount of time has been set aside for comments by interested applicants, state leaders and service providers, reducing the likelihood that program participants will be able to offer their thoughtful perspectives on how the list could be clarified and improved.

Because of the constraints of time, our own comments will, of necessity, be limited. We hope, however, that the Commission will give thoughtful attention to stakeholder comments, as they will be based on seven years of experience in working with the schools and libraries program.

### **Firewall-Like Network Security Solutions**

In October 2003, the Commission took an important step when, for the first time, it said firewalls would be eligible for E-rate discounts because there were “necessary to ensure operation of the network.” With this decision, the Commission correctly decided that the definition of Internal Connections could be broad enough to include a special class of equipment that does not physically transport information to the classroom but, as a practical matter, is just as “necessary” for that purpose. Thus, the Commission provided an important incentive for schools and libraries to build not just networks, but networks that were intelligent and secure.

This need becomes more critical every day. In February 2003, the U.S. Department of Homeland Security, in its “National Strategy to Secure Cyberspace,” set securing governments’ cyberspace as one of its priorities, and called for government and industry to work together to promote cyber security. The Commission did the right thing last fall when it encouraged schools and libraries to build their networks in secure ways. Now it should broaden this position so that E-rate applicants can receive discounts on a wider range of technology solutions that are designed to secure networks from hackers, no matter whether they are an international terrorist or a high school student trying to change his or her report card grades from a home computer. This eligibility determination should

be broadened to include such network security solutions as Virtual Private Networks and proxy servers. We believe the SLD may already have been instructed to fund intrusion detection equipment in this category; if not, this vitally important class of network security equipment should likewise be funded and for the same reasons.

**Virtual Private Networks:** From a functional standpoint, there is little difference between a Virtual Private Network (“VPN”) and a firewall. A firewall, in essence, looks at something that is trying to enter a network and decides whether it is cause for concern and blocks it if it is.

A VPN controls access to a network and keeps information secure as it moves over the Internet. To draw an analogy with security outside of cyberspace, a VPN works this way: Assume that Joe in Oklahoma wants to send a gift to Gordon in Washington, DC, but doesn’t want anyone else in the world to know that he is sending the gift to Gordon. So to deliver the gift in a secure way, he goes to the security guard in his building and gets the security guard to check his credentials and determine that he is authorized to send a gift to Gordon in Washington, DC. The security guard then accepts the gift and places it in an unlabeled box. The box is then sent via an express delivery service to Gordon’s office in Washington. Using his secret security officer decoder ring, Gordon’s security guard is able to check the package to determine that it was sent by a person who was deemed to be trustworthy. The guard can also use his technology to read the name of the package’s recipient. Because everything checks out, he opens the box and delivers the gift to Gordon’s office.

VPN functionality is a standard firewall feature because it is an integral part of a complete network security solution. The firewall/VPN authenticates access to and from a network and encrypts information sent between certain locations or users. Together and separately, each is “necessary to ensure operation of the network.” Consequently, whatever difference there may be between firewalls and virtual private networks amounts to little more than a distinction without a meaningful difference, making the definition of “Internal Connections” broad enough to cover both.

**Proxy Servers:** A proxy server is a software package running on a server positioned between an internal network and the Internet. The proxy server filters all outgoing communications so that they appear to be coming from the same machine in an attempt to conceal the underlying internal network structure from any intruders. By disguising the real structure of the network, the proxy server makes it much more difficult for an intruder to mount a successful attack. A proxy server also forwards requests to the Internet, intercepts the response, and then forwards the response to the network node, permitting a system administrator to regulate the external sites to which users can connect.

The Commission should review all the available technologies for securing networks and permit schools and libraries to enjoy the advantages of E-rate discounts on those that are reasonable solutions to their pressing need to adequately and cost-effectively secure the networks that the E-rate has helped them build. Doing so will help ensure that E-rate discounts are ultimately used wisely and well.

### **Caching Servers and Devices**

Like firewalls, caching servers and other caching devices are critically necessary to the successful timely transfer of information, such as bandwidth-consuming video and graphics files, to the classroom. Caching devices have a direct relationship to the cost-effective use of E-rate discounts by ensuring that applicants can conserve the bandwidth they will eventually have to procure. However, because the program refuses to support such devices, applicants are not encouraged to procure bandwidth in the most cost-effective way. Encouraging applicants to make use of caching servers could ultimately permit more applicants to enjoy the benefits of E-rate discounts by reducing the funds that would be necessary to support recurring services.

We detailed our arguments in support of the eligibility of caching servers in an appeal that we filed on behalf of the Prince George's County Public Schools on October 2, 2001. ([http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=651276](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=651276))

7375.) On June 12, 2002, we petitioned the full Commission to reconsider a May 13, 2002 decision by the Wireline Competition Bureau in this matter. The bureau said, in essence, that it had no authority to overturn the Commission's position in the so-called *Tennessee Order*, but that the school district was "free to raise this proposal [caching server eligibility] in the context of the [Schools and Libraries Universal Service Support Mechanism] rule-making. We have continually raised this issue in subsequent Notice of Proposed Rulemakings, and do so again with this filing. To date, the Commission has not acted on this petition for reconsideration, which was filed more than two years ago.

### **Definition of Educational Purposes**

In 2003, the Commission adopted a new definition of "educational purposes" that is interpreted in the Eligible Services List under "Eligible Users and Locations." The list, in its 2004 iteration and the current draft, specifies that "eligible users and locations are those that are involved with activities that are integral, immediate and proximate to the education of students or the provision of library services to patrons. The presumption is that activities on school or library property meet this standard. . . .The term 'school or library property' includes a District Office or similar facility, but does not include businesses or organizations separate from a school or library organization." We believe that this was a reasonable position for the Commission to take, and was designed to eliminate differences in how rules were being applied toward traditional telecommunications services and cellular and paging services. Further, we believe the Commission sought to relieve applicants of some of the burden associated with having to review phone services to school employees and break out services to employees who worked outside of traditional classrooms or a central district office.

PIA is taking the position that Priority One services to Adult Education facilities, owned by the school district and staffed by its employees, are not eligible for support in states where Adult Ed facilities are not considered secondary schools under the provisions of the No Child Left Behind Act (the Elementary and Secondary Education Act). We presume the same position would be taken regarding services to facilities that were solely Pre-K facilities. Thus, services to support these kinds of school district

programs, which would otherwise be eligible, apparently represent an exception to the general rule that services to support school employees at school sites are presumptively eligible.

If that is the way that the Commission intends for its rules to be interpreted, we encourage the Commission to make that perfectly clear by adding these details to its definition of Eligible Users and Locations, as it would be helpful for this distinction to be explained there. Further, if PIA is applying additional criteria to the determination of eligible users and locations, we hope *all* of those standards will be made clear to applicants *before* they submit their funding requests for the 2005 funding year so that they can attempt to apply correctly. Applicants should understand the certifications they will be required to make before they apply, rather than after.

### **Summary**

We encourage the Commission to do all that it can to clarify how it intends its rules to be applied so that applicants and their providers can do it right from the start. We also urge the Commission to empower the SLD to create a more formal procedure through which the eligibility of specific products can be reviewed. Further, we urge the staff of the Wireline Competition Bureau and the Universal Service Administrative Company to solicit input from persons who are knowledgeable about technology solutions to make sure that the Eligible Services List correctly reflects the state of technological development, as well as the realities of the K-12 technology market.

### **FUNDS FOR LEARNING, LLC**

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