

Before the
Federal Communications Commission
Washington, DC 20554

In the matter of:

Notice of Proposed Rulemaking
Adopted: July 25, 2008

Schools and Libraries Universal
Support Mechanism

FCC 08-173
CC Docket No. 02-6

COMMENTS OF THE E-RATE SERVICE PROVIDERS ASSOCIATION

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SUMMARY

The E-rate Service Providers Association (“ESPA”) respectfully submits these comments in response to the Federal Communications Commission’s (“Commission” or “FCC”) Public Notice regarding the Notice of Proposed Rulemaking (NPRM) for the Schools and Libraries Universal Service Mechanism. The E-rate Service Providers Association (“ESPA”) is a trade association serving the interests of the E-rate Service Provider community. ESPA’s purpose is to promote the E-rate Program as a means to support the delivery of advanced telecommunications and information services to our nation’s schools and libraries. ESPA’s goals are to provide Transparency, Predictability and Due Process in the program. ESPA, in most cases, supports the changes proposed. ESPA is providing additional comments in the specific areas listed below.

- General Comments
 - Call for Increased Schools and Libraries Funding
 - SPIN Holder versus Service Provider
 - Adding Services
 - Eligibility Determination Procedure
 - Educational Use
- Comments of Specific Services
 - Dark Fiber
 - Interconnected Voice-over-IP
 - Advanced Firewall Services, Content Filtering, and Virus Protection
 - Spam Filtering
 - Basic Telephone Service and Technology Planning
 - Text Messaging
 - Wireless Internet Applications
 - Telephone Broadcast Messaging
 - Scheduling Services

GENERAL COMMENTS

A Call for Increased Schools and Libraries Funding

ESPA comments that the funding has remained constant since the inception of the program, with no adjustment made for the increased use of and the greater reliance on technology. ESPA comments that in the past decade, we have seen tremendous evolution in the features and bandwidth of equipment, connections, and services:

- Directory-aware email has replaced simple text mail
- 10 mbps WANs have replaced T1s
- 100 megabit Ethernet has replaced 10 megabit Ethernet, and may soon be replaced by gigabit Ethernet.
- IP/TV is available, along with full-motion, full screen distance learning.
- Integration of technology into school curriculum and teaching methodologies
- ...and much more

In order for schools and libraries to be able to be able to take advantage of these newer technologies, it is plainly apparent that the funding cap of 2.25 billion dollars is insufficient. ESPA recommends the following:

- Realigned funds within the four divisions of the Universal Services Fund in order to increase the funding cap for the Schools and Libraries Division.
- Altering the discount percentages for Priority 2 services.

ESPA concludes that an investigation of the financial impact of these changes is warranted, and urges the FCC to consider the matter carefully.

SPIN holder versus Service Provider

ESPA comments that since the beginning of the program, the SLD has equated being the SPIN holder with actually delivering the services, but in the era of specialization, this is not necessarily the case. Often, service providers hire subcontractors to deliver the actual services in question, giving the applicants the choice of having a single provider as the SPIN holder in order to have a single point of contact and project management. ESPA strongly recommends that the FCC allow service providers who are not certified Telecommunications Providers (TPs) to be the SPIN holder for larger projects, with the proviso that they subcontract the Priority 1 work that requires a certified TP to an appropriate TP.

Currently, larger applicants that wish a single service provider to deliver both their Priority 1 and Priority 2 services are limited to a few, select, larger vendors. ESPA comments that this is unnecessarily anti-competitive, contrary to the spirit of the program, and a misreading of the original rules which require telecommunications services to be provided by TPs. The spirit and letter of this rule would be met without a rule change simply by changing SLD procedures to permit a subcontractor to be a TP without requiring the SPIN holder to be one. Further, it would open up competition to smaller TPs who do not have the scope or technical expertise to be SPIN holder for a large integrated installation. ESPA notes that there are a number of smaller TPs who could provide the WAN services extremely cost-effectively in partnership with an internal connections provider who would have overall project responsibility. ESPA comments that making this simple change would give applicants greater choice, support greater competition, lower prices, and level the playing field for all service providers. ESPA asserts that it would be easy to implement and check as part of the Item 21 submission.

The requirement for the listed provider to be a TP is artificial as no matter the listed provider, there is an underlying telecom carrier (TP and USF contributor) involved in the transaction. ESPA recommends that the requirement that telecom services including data lines between sites be delivered by a TP be removed and replaced with a requirement, similar to interconnected VoIP, that the service provider ultimately use a TP as part of the service delivery. Such a modification would eliminate numerous levels of E-Rate review between the two artificially separated services and open up significant competition for these services. It would eliminate significant efforts to decide where the Internet begins and allow those resources to focus on more important compliance issues. ESPA believes that such a modification would not reduce the USF fund in any way and benefit schools and libraries by providing increased service options.

Adding Services

ESPA comments that the funding threshold has been creeping steadily upward, to the point where funding at 90% for Priority 2 applications is no longer certain. Adding eligible Priority 1 services may further decrease the amount of funds available for Priority 2 applications.

While adding Priority 2 services will have no effect on the funding threshold, ESPA comments that the 2/5 Rule may force applicants who have used their years of eligibility already to wait to implement any of the new services the FCC may add as a result of this proceeding. Although ESPA anticipates that it would be administratively burdensome to SLD, ESPA cautiously comments that the FCC may consider waiving the 2/5 Rule for the purchase of any new Internal Connections

services made eligible for the first time as a result of this proceeding, as it would have been difficult for applicants to appropriately plan for services that were not eligible at the time.

Eligibility Determination Procedure

In Section II-3, FCC writes that, “Applicants or service providers could appeal to the Commission a determination that a given service was ineligible for discounts only after a requested service was rejected.” ESPA comments that applicants and service providers should be able to request, from SLD, a prospective review of eligibility. ESPA asserts that knowing in advance if a service is eligible will greatly assist in the technology planning process, will reduce the incidence of denials, and therefore appeals, and ESPA believes, will simplify and streamline the process. ESPA comments that SLD has consistently held the view that the application process itself is the only test for eligibility they support, but has on numerous occasions funded an application (thus pronouncing it “eligible,”) only to reverse themselves, often after the service has been delivered, and often resulting in a COMAD. In addition, if during the invoicing review process, the accounts payable section of SLD determines that the applications review division has made a mistake, and the services requested were not actually eligible, they will not pay the invoices. ESPA strongly urges FCC, in the interest of fairness and due process, to institute a better system, which allows for prospective determinations of eligibility, and for those determinations to be thorough, competent, and unassailable. ESPA strongly comments that absent extenuating circumstances, such as fraud or omission, the SLD should not be allowed the “change its mind” after the fact. Service Providers rely on the SLD to make accurate determinations – pre-commitment denials are far better than post-commitment COMADs. Service Providers must be afforded “Safe Harbor” by being able to rely on accurate initial funding commitment decisions.

Educational Use

ESPA comments that the term “Educational Use” has received a great deal of scrutiny within the E-rate Program, where the reality in the applicant community is a simpler matter; generally speaking, if it is used by the school district, it is considered to be used for Educational Purposes. School districts have legal responsibilities beyond the traditional role of education. They operate *in loco parentis* and have legal responsibility for the safety and welfare of the students in their charge. School districts provide a wide variety of services beyond “education” such as day care, after school activities, counseling, medical care, serving 2 meals a day, and operating a robust public transportation system. In short, if it is a responsibility of the school district, then it should be considered an educational purpose. ESPA comments that excessive parsing of the meaning of “Educational Use” creates a significant administrative burden on both the SLD and the FCC, and is a matter best left to the Department of Education and individual school districts to decide.

COMMENTS ON SPECIFIC SERVICES

Dark Fiber

ESPA is a trade association, comprising a wide variety of service providers, large and small, telecommunications providers and internal connections only providers, of many geographies and specialties. As such, ESPA has no stance, either affirmative or negative, regarding the basic eligibility of Dark Fiber. ESPA does, however, have several comments regarding FCC's decision-making process:

- ESPA comments that fiber must be “lit” to be considered a service; if FCC rules that it is eligible, it should be included in the “Miscellaneous” category.
- ESPA comments that to be considered a “lit” service, the service in question must contain a clear line of demarcation between provider equipment and applicant equipment, and must provide a basic level of network management.
- ESPA comments that providing applicants with more choices supports FCC's goals of technical and competitive neutrality.
- ESPA comments that the functional difference between a “dark” service and a “lit” service is an inexpensive transceiver. When dark fiber was originally ruled ineligible, contracts could be rewritten to include the minimal lighting components, transceivers, GBICs, etc., in order

to make dark service lit and therefore eligible. ESPA comments that the distinction between eligible and ineligible fiber is, therefore, functionally and economically negligible.

- ESPA comments that while fiber is, by almost universal agreement, the best long-distance medium available, there are other transport technologies available as well, including wireless, power and microwave. ESPA supports efforts to encourage development of these other technologies.
- ESPA comments that Dark Fiber is, by definition, built for use by a single customer.
- ESPA does not support the inclusion of “spare strands” as eligible. ESPA explicitly restricts comments concerning capacity to pertain to higher speeds on the same minimum pairs of fiber, not more strands.
- ESPA supports situational modification of the presumption that a service that crosses a public right-of-way is a Priority 1 service. There are many cases, especially in larger urban centers, where eligible buildings may be located proximate to each other, but separated by a public right of way. In these cases it may be more cost-effective to allow the applicants to purchase and install point to point connectivity, incurring a one-time charge, as opposed to a monthly, recurring charge. ESPA believes that flexibility in this regard would result in lower program costs, and greater flexibility for applicants. ESPA comments that the particular medium, whether fiber, wireless, or other, is not pertinent. ESPA suggests a *de minimus* standard be applied.

- ESPA comments regarding FCC’s questions concerning cost allocation that a bandwidth-based cost allocation methodology will not work due to the fact that there is no “upper limit” on the amount of bandwidth possible. It would result in a “division by infinity” issue which would not yield a usable result.
- ESPA urges FCC to consider the ramifications of a more permissive view of the use of the E-rate funded services to ineligible entities when there is no cost delta to the program. E-Rate should allow minimal use of fiber service at schools and libraries by other entities/users without requirement of cost allocation including after school programs, community programs, etc. Schools should have the same ability to provide access to the internet to the community after school hours as libraries as long as there is no incremental cost to provide such service. Such use should not include allowing ineligible stand alone facilities to connect to E-Rate funded service at no cost - consistent with current rules.

Interconnected Voice-over-IP Services

ESPA agrees with FCC’s tentative conclusion that Interconnected Voice-over-IP (VoIP) services should continue to be eligible for Priority 1 funding under program rules. Fundamentally, VoIP is just a different method of delivering dial tone, and should be eligible just like other methods of delivering dial tone. Indeed, both the enabling statute and the original FCC Order require technological neutrality. A large percentage of the consumer and commercial market has implemented VoIP service effectively and this option should continue to be available for schools and libraries. Limiting options to older telephony technologies would be a step in the wrong direction.

ESPA comments that many of the larger carriers use IP to transport voice telephone calls across their networks, and, as currently defined in the Program, those services could be considered VoIP as well.

The effect of the removal of these services could make vendor selection more difficult if VoIP dial tone services will be required to be cost-allocated out of local or long-distance phone service.

ESPA believes that VoIP service delivered as dialtone and related upstream telephony services and features including connectivity to the Public Switched Telephone Network (PSTN) is the focus of this discussion. ESPA believes that end site telephony systems – PBXs and similar – whether traditional telephony or IP - based should continue to be eligible as a Priority 2 service. ESPA's reference in this response is specifically focused on VoIP dial tone service and not customer premise telephony equipment.

The question of what category of service is applied to VoIP goes to the heart of one of the most important questions facing lawmakers and regulators today, which is, where is the line between voice and data? VoIP certainly blurs that line, and cases have been made either way, for in truth VoIP is both, simultaneously. For program purposes, voice services are offered by telecommunications providers, while data services can be offered by non-regulated providers. The program currently considers interconnected VoIP as eligible as a miscellaneous service. ESPA is not as concerned about the categorization on the Eligible Services List as it is about the continued eligibility of the service. Since the FCC now mandates USF collection by interconnected VoIP providers, any provider that meets those requirements should also be eligible to deliver VoIP service to schools.

VoIP is an important technology and competitor to traditional telephony. It has the ability to, at a minimum, increase competition in areas where traditional telephony competition is minimal. This increased competition allows more choice for schools and libraries and should lead to more cost effective purchasing, which is a value to the E-Rate program as a whole. Elimination of VoIP as an eligible service would remove a commercially acceptable and analogous technology from schools, lessen competition and most likely increase cost of service.

In addition, the removal of VoIP from the eligible services list after years of eligibility would create a financial hardship for numerous school systems that have come to rely on this technology as they would be required to either (1) pay significantly more for the same dial tone services due to loss of E-Rate or (2) revert back to a traditional telephony solution and in the process abandon investment in their IP - based solution.

ESPA believes the damage from a change in VoIP eligibility would be substantial and strongly encourages the FCC to maintain eligibility of VoIP service in its broadest form for the benefit of schools and libraries.

Last, ESPA comments that should FCC adjudicate VoIP service to continue to be an eligible service, we recommend that it be included in the expanded definition of “Basic Telephone Service” not requiring an Approved Technology Plan to receive funding.

Advanced Firewall Services, Content and Spam Filtering, and Virus Protection

ESPA strongly believes that Advanced Firewall Services, Content Filtering, Spam Filtering, and Virus Protection should be eligible for funding. When the E-rate Program was begun in 1998, the definition of “necessary,” as in, “necessary for the transport of information to the classroom” was the cardinal word which allowed SLD to separate eligible from ineligible services. At the time, “necessary” was interpreted so as to allow the funding of basic transport only, but ESPA comments that it is now time, in the face of the growing complexity of the online environment, the increasing incidents of sexual predators, hackers, phishers, and various other types of expensive or dangerous malfeasance, it has become necessary to protect our children and schools from attacks of all sorts.

To properly protect our children, resources and information from attack, a multiple-layered approach must be used. Basic firewall products can determine whether an individual connection is valid by performing an examination of the packet header information. However, this is increasingly insufficient, as the authors of mischievous, malicious, or destructive programs learn and adapt, creating more complicated, hidden, multi-layered code, containing a blend of different attack types to exploit any weakness in the protective system. Malware can be hidden anywhere within a packet of information, and the information must be completely reassembled in order to determine that a threat exists.

ESPA comments that most (if not all) equipment manufacturers are designing more fully-featured, complex gateway products, requiring more complicated and less accurate cost allocation. Permitting more of the functions that are being intentionally included by manufacturers will streamline the eligibility process, reduce, if not eliminate, the need for cumbersome and inaccurate cost allocation, and, in general, simplify the program.

ESPA also comments that since many of the problems caused by viruses or attacks can be mistaken for network transport problems, the correction of which falls under “Basic Maintenance,” the adage, “an ounce of prevention equals a pound of cure” applies here. Preventing the attacks before they enter the system should result in fewer network outages, greater productivity, and lower repair costs billed to the program.

ESPA does not recommend allowing workstation-based products to be eligible for funding, only those products that function as gateway products. There is a wide variety of gateway products available on the market, which should promote competition and ensure a choice for all applicants. ESPA recommends that the recurring updating and maintenance features of these products be included as an eligible Basic Maintenance feature, and that the products be eligible as either a Priority 2: Internal Connections service, should the applicant choose to purchase their own product, or as a Priority 1: Internet Access service, should the applicant decide they wish a service provider to provide the product as part of On-Premises Equipment, pursuant to the Tennessee Decision, or as a centrally hosted (on vendor premise) solution (ASP type solution).

Regarding CIPA, ESPA takes no position on whether or not the Act permits USF funds to pay for Content Filtering; ESPA merely believes that it is necessary for the protection of our children, and should be funded if possible.

ESPA believes that Spam Filtering should be eligible for funding. Although Spam is generally considered more of an annoyance than a threat, it wastes valuable storage and management resources, and unless blocked prior to entering the district, the district may be legally bound to archive it for discovery purposes. In addition, Spam is a growing concern as an entry point for newer viruses, which is why ESPA has included it in this section, and many fully-featured gateway products include spam filtering.

Finally, ESPA supplies the following definitions to assist the FCC in making its determination of eligibility:

Stateful Firewall: Stateful Inspection technology works at the network layer to track each connection traversing all interfaces of the firewall to ensure validity. While this filtering is useful, it is not adequate to determine the difference between, for example, a valid email message and a message compromised by a virus, because Stateful Inspection does not check the actual contents of the packets to distinguish malicious content from valid content.

Deep Packet Inspection (DPI): Deep Packet Inspection goes further than Stateful Inspection to examine the payloads, or contents contained in packets in addition to the headers. As long as an attack can be contained in just a few packets, DPI can be effective in detecting and ultimately preventing the attack. As such, DPI technology is effective against buffer overflow attacks, denial of

service (DoS) attacks, sophisticated intrusions, and a small percentage of worms that fit within a single packet.

Intrusion Protection/Detection Systems (IPS/ISD): Intrusion Protection/Detection Systems go beyond the capabilities of DPI by combining signature and anomaly detection and prevention techniques to identify inappropriate behavior within valid sessions that may traverse potentially thousands of packets. These attack signatures and anomaly detections reliably protect your network from attacks while system administrators to log and/or block inappropriate behavior within those valid sessions.

Gateway Antivirus (GAV): Gateway Antivirus is complete inspection of key objects such as files, documents, and programs, followed by the scanning and analysis of the objects to detect content-based threats. This full content reassembly assures that critical threats such as viruses and worms that are often embedded in large files are not missed.

Basic Telephone Service and Technology Planning

ESPA comments that while the requirement for a comprehensive, certified Technology Plan is important for an applicant's ability to make appropriate use of high-end, complicated services, ESPA believes that there are many basic services that should be exempt from the Technology Planning requirement. These services include all voice communications, including local and long distance, regardless of medium, and cell phones; basic internet connectivity; basic data connectivity, including a district wide WAN and in-school LAN; and Email for faculty and students. ESPA comments that such basic services are a necessity for any district in order to conduct its fundamental business, and should therefore be exempt from any additional requirements.

Text Messaging

ESPA comments that text messaging can offered as both a Priority 1 service and a Priority 2 service. Priority 1 text messaging, generally speaking, allows for text to be sent to cell phones, and is frequently included within traditional cell phones plans. ESPA comments that the application of consistent eligibility standards supports the inclusion of Priority 1 text messaging as an eligible service.

Priority 2 text messaging is a useful inter-office application which sometimes comes bundled with more fully-featured email packages. ESPA supports the inclusion of Priority 2 text messaging as an eligible service.

Wireless Internet Applications

ESPA has commented previously in this document that school districts take a more straightforward view as to the scope of “Educational Purposes.” In short, if a school district does it, it is educational in nature. ESPA comments that this is an excellent opportunity to bring further simplicity and clarity to the program.

ESPA comments that wireless internet service delivered via cell phone service should be allowable under either Telecommunications or Internet Access, and that it is unnecessary to separate the Internet Access component in the Forms 470 or 471.

ESPA believes that the FCC is concerned about the cost implications of wireless Internet applications especially wireless laptop cards that could essentially create “home access” for teachers and students through such devices. ESPA asserts that such access is a noble goal, but is beyond the scope of funding for the E-Rate program.

Given this concern, ESPA recommends that the FCC require certifications from school systems as follows, most likely on the Form 471:

- None of the services provided under this application will be used to provide Internet Access or Telephony service to students when not on school property.
- None of the services provided under this application will be used to provide primary home Internet Access or Telephony service to teachers, administrators, school district employees or other third parties.

While a certification solution is not perfect, it should allow the FCC and SLD to inquire regarding potential usage and determine that home access is not the intention of an E-Rate application. That effort plus review of application dollar amounts under cost effectiveness review should be enough to protect the program from unexpected spiraling costs of overuse of wireless internet access applications.

Telephone Broadcast Messaging

ESPA supports the concept of Telephone Broadcast Messaging (TBM) and similar communication efforts to the extent that such systems are part of delivery of basic voice services. Due to the lack of available funding, ESPA does not believe that stand-alone, add-on TBM systems can be afforded by the program and due to their nature reach well beyond basic communications, and perhaps into the realm of content.

ESPA recommends that TBM service be eligible as an ancillary and minimal cost component of a voice service (VoIP or traditional telephony) and ineligible if purchased as a stand-alone, separately priced service. ESPA further notes that similar broadcast messaging via other media, e.g. Email, Internet, etc, should be considered eligible under the same criteria.

Scheduling Services

ESPA agrees with previous commenters that Video Teleconferencing Scheduling Software is a necessary component to use distance learning and other eligible video technologies effectively.

ESPA supports the inclusion of such services into the Eligible Services List.

CONCLUSION

ESPA appreciates the opportunity to comment on the matters raised by this NPRM. This NPRM, centering around eligible services, provides the opportunity to make tremendous improvements in the program. First, of particular note is the inclusion of security products, aka, Advanced Firewall and Virus Protection, which ESPA feels is vital for the protection of our children, both from sexual predators, and identity theft. Second, ESPA is pleased that the FCC has decided to address the issue of Dark Fiber. Although ESPA, due to its constitution as a blended Priority 1 / Priority 2 organization, takes no position on the prospective eligibility of Dark Fiber, we made a number of comments pursuant to framing the discussion properly, and excluding certain pieces, such as the “spare pairs” discussion. Third, ESPA considers it of critical importance that the FCC recognize the hardships imposed on service providers, and the fundamental unfairness of allowing the SLD to “change their minds” on previously funded applications. Last, ESPA strongly urges the FCC to consider allowing non-Telecommunications Providers to be the SPIN holders for Priority 1 services; so long as a TP provides the service, the FCC should not restrict competition by prohibiting non-TPs from responding to bids where the applicant wants a sole-source provider.

Respectfully submitted,

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