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	)	
	)	

COMMENTS OF FUNDS FOR LEARNING, LLC
ON DRAFT ELIGIBLE SERVICES LIST
FOR SCHOOLS AND LIBRARIES UNIVERSAL SERVICE SUPPORT MECHANISM
FOR THE 2010 FUNDING YEAR

INTRODUCTION

The Federal Communications Commission ("Commission") has requested public comments on nine "changes" that the Universal Administrative Company ("USAC") has proposed making to the E-rate program's Eligible Services List ("ESL") for the 2010 funding year. Funds For Learning, LLC ("FFL") is a regulatory compliance company and web-based, E-rate-focused software developer that has specialized in the E-Rate program since the program's inception and the company's founding in 1997. FFL provides a wide range of E-rate-related services, including keeping clients and the public informed about program developments, assistance with application and other form filing, electronic recordkeeping, and helping organizations comply with a long, organic list of rules and other administrative requirements.

We appreciate this opportunity to comment on the proposed 2010 ESL. FFL's comments are divided into three sections:

Section 1: Important Distinction between Change and Clarification
Section 2: Proposed ESL
Section 3: Powered Failover and Redundant Equipment Eligible

SECTION 1: IMPORTANT DISTINCTION BETWEEN "CHANGE" AND "CLARIFICATION"

Many of the changes that USAC has proposed this year are not changes at all, but rather, clarifications of services that USAC already funds on a routine basis. Although clarifications are always useful and therefore welcomed, it is important for the Commission to understand that clarifications like these can actually cause a great deal of unnecessary confusion and even harm.

This problem tends to manifest itself most often during the audit process, and since the number of audits has increased substantially, these kinds of problems have increased, too. The challenge stems from the audit team's reliance on the ESL for guidance in determining whether a product or service was eligible for discounts during a particular funding year. We have found that audit teams routinely assume, incorrectly, that the year a clarification is added to the ESL is the year that the service became eligible. This leads audit teams to find, incorrectly, that applicants should not have received funding for the "clarified" services during any funding year that pre-dated the clarification. Incorrect audit findings such as these are frustrating, costly and time-consuming for every organization involved in the process, including USAC.

Fortunately, there is a simple solution to this problem. **We propose that USAC clearly distinguish in the ESL between eligibility "changes" and "clarifications."** A designation could be added next to service clarification entries to indicate that the service has been eligible for discounts in prior funding years. This would reduce confusion for auditors and E-rate stakeholders about *when* an item became eligible for discounts.

SECTION 2: PROPOSED ESL

In its public notice, the Commission lists the following as USAC's proposed changes:

1. listing Ethernet as an eligible digital transmission technology;
2. clarifying that text messaging is an eligible telephone service component;
3. expanding the categories in which applicants can seek interconnected voice over Internet protocol (VoIP) services by adding interconnected VoIP to the telecommunications and Internet Access categories;
4. clarifying that password-protected web pages are eligible as part of web hosting services;

5. including wireless local area network controllers as eligible under internal connections;

6. finding that user licenses for interconnected VoIP systems are eligible under internal connections as server-based software;

7. adding unbundled warranty as eligible under the basic maintenance of internal connections category;

8. adding virtualization software as an eligible software for which funding can be sought in the internal connections category; and

9. specifying that the following products or services are not eligible for discounts: broadcast messaging; power distribution units; video-on-demand servers; softphones; interactive white boards; and e-mail archiving beyond the storage component that allows current e-mails that have been received to be viewed by the user.

Below are FFL's comments regarding each of these items.

1. ETHERNET AS ELIGIBLE DIGITAL TRANSMISSION TECHNOLOGY

Ethernet is one of the most basic of all digital transmission technologies. It is clearly an eligible service and USAC has consistently funded it in the past. We support this and any other addition to the ESL that helps clarify the program's eligibility rules – so long as the ESL notes explicitly that this is merely a clarification and not a rule change.

2. TEXT MESSAGING AS ELIGIBLE TELEPHONE SERVICE COMPONENT

Text messaging always has been and should continue to be an eligible Priority One (Telecommunications) service. As discussed previously, auditors many times fail to draw the important distinction between an eligibility change and an eligibility clarification. Therefore, to preempt any possibility of confusion later on during the audit process, the ESL should note explicitly that this is merely a clarification and not a rule change.

3. ADDITIONAL SERVICE CATEGORIES FOR VOICE OVER INTERNET PROTOCOL

Interconnected Voice Over IP (iVoIP) services have been eligible for E-rate discounts in the Internet Access category since iVoIP was added to the Funding Year 2007 Eligible Services List. We agree that it makes sense and is consistent with the program's regulatory framework to fund these services in the telecommunications category, as well.

As to a related matter, we have observed that there continues to be substantial confusion among E-rate stakeholders concerning managed VoIP service and the eligibility requirements of equipment deployed at an applicant's location. To eliminate further confusion that may lead to funding denials and/or fraud, **we recommend the Commission include in the 2010 ESL's definition of iVoIP a reference to the *Tennessee Order*[1] and explain clearly how the eligibility criteria for managed telecommunications services set forth in that case applies to VoIP.**

4. PASSWORD-PROTECTED WEB PAGES ELIGIBLE AS PART OF WEB HOSTING

We agree with USAC's proposed clarification which states, "Web hosting may include intranet service and/or password protected pages." The purpose of the E-rate program is to transmit educational information to students and library patrons. Finding that a web hosting service must serve pages to the general public in order to be eligible would clearly create a conceptual anomaly that could not possibly stand up to any amount of scrutiny.

USAC's Communication of Eligibility Information Needs Revision

USAC needs to implement a more robust process for reaching eligibility decisions and communicating these decisions to E-rate stakeholders. The history behind the proposed eligibility of password-protected web pages illustrates the need for this improvement; therefore, a small, but relevant portion of its history is provided here.

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[1] *Request for Review by the Department of Education of the State of Tennessee, Integrated Systems and Internet Solutions, Inc., and Education Networks of America*, CC Docket Nos. 96-45 and 97-21, Order, 14 FCC Rcd 13734, (1999) (*Tennessee Order*).

Web hosting history

On January 30, 2009, shortly before the window application period for the 2009 Funding Year closed, USAC made a very important announcement in its e-mail newsletter about the eligibility of intranet web hosting. That particular variety of web hosting, USAC stated unequivocally, is not an eligible service:

> Intranet web hosting which generally requires a user name and password to log in to view web pages is not an eligible web hosting service. Vendors that provide this service along with hosting an applicant's public website must cost allocate the costs associated with the protected content[2].

On April 10, 2009, less than three months later and after the window application period closed, USAC did a complete about-face. This time in its newsletter, USAC announced that intranet web hosting is an eligible service and, further, that it intended to apply this rule to 2009 Funding Year applications[3]. Consequently, if you were an applicant that happened to apply for discounts on intranet web hosting before January 30th, when USAC announced publicly for the first time that the service was ineligible, or you were an applicant that either ignored or never saw the January 30th announcement, and thus applied afterwards, you were in luck. On the other hand, if you decided not to file for intranet web hosting discounts after January 30th, you were not lucky at all.   In response, USAC indicated that it would do what it could to address the situation created by the conflicting guidance. Thereafter, on April 24th, in another e-mail newsletter, USAC qualified web hosting eligibility further, this particular time explaining that for web hosting services to qualify for discounts, applicants must have "control" over the hosted website, and then it went on to define the term, "control."[4]

Recommended Improvement to Eligibility Guidance

Shorter product life cycles, advances in technology, and new guidance from the FCC, all necessitate that USAC keep applicants "in the loop" about current eligibility considerations. Obviously, USAC has recognized this need and responded by providing weekly news updates, as described in the Web hosting history. We applaud USAC's desire to provide increased

[2] Schools and Libraries News Brief (Jan. 30, 2009), <http://usac.org/sl/tools/news-briefs/preview.aspx?id=209>.
[3] Schools and Libraries News Brief (April 10, 2009), <http://usac.org/sl/tools/news-briefs/preview.aspx?id=219>.
[4] Schools and Libraries News Brief (April 24, 2009), < http://usac.org/sl/tools/news-briefs/preview.aspx?id=220>.

transparency into its processes and to improve customer service for applicants and service providers.

As a practical matter, placing important eligibility guidance in an e-mail newsletter is tantamount to hiding it. USAC routinely instructs people who want eligibility information to consult the Eligible Services List, not USAC newsletters. Most people would never think to look or take the time to search for additional eligibility in old USAC newsletters. For those who do, they quickly discover that locating specific information, in the proper sequence, is difficult and requires reviewing all newsletters to insure accuracy and completeness.

Very simply put and as the old expression goes, issuing critical eligibility information in such an untimely, haphazard, and inconsistent manner is "no way to run a railroad". Schools, libraries and service providers are required to follow the rules. Those rules should be communicated to them in a clear, timely and consistent manner and by a means that is reasonably designed to reach them. Issuing pronouncements about the eligibility of certain services right before an application period is about to close is obviously unfair and bound to cause enormous administrative problems. Changing course completely on the exact same issue shortly after an application period closes raises issues of fairness and equity that are equally obvious and bound to create not only problems, but also administrative nightmares. Finally, issuing far-reaching and important eligibility guidelines via an informal weekly newsletter makes it very difficult for interested individuals to properly research and understand E-rate eligibility.

We therefore urge the Commission and USAC to develop a more structured approach to the administrative review and application of the ESL to specific products and services and that the results of this process be communicated in a formal manner to stakeholders.

5. WIRELESS LOCAL AREA NETWORK CONTROLLERS ELIGIBLE

Wireless LAN controllers are a critical piece of network infrastructure in a wireless LAN environment. These controllers clearly fit within the Internal Connections category, and USAC has routinely provided support to applicants for purchasing this type of equipment. We believe that further clarification may lead, as we have cautioned before, to auditors concluding that

wireless LAN controllers did not become eligible until the 2009 Funding Year.   Consequently, we request that the ESL reflect that this is merely a clarification and not a rule change.

6. INTERCONNECTED VOIP USER LICENSES ELIGIBLE AS SERVER-BASED SOFTWARE

Finding that iVoIP user licenses are eligible components of an iVoIP system in the Internal Connections funding category makes sense under the framework established for assessing software eligibility. This clarification should be helpful to applicants and service providers determining the eligibility of Voice-over-IP telephone systems. We believe, however, that USAC has funded this software before, which means that it will not be newly eligible for the 2010 Funding Year. If this is correct, then the entry for this software in the ESL would be a clarification, and, to avoid confusion, it should be designated explicitly as such.

7. UNBUNDLED WARRANTY ELIGIBLE UNDER BASIC MAINTENANCE CATEGORY

In the *Third Report and Order*, the Commission instructed USAC to create a separate category for the Basic Maintenance of Internal Connections.[5] As a result of this order, when USAC released the ESL for Funding Year 2005, it added the following:

> Basic Maintenance ensures the necessary and continued operation of eligible internal connection components at eligible locations.   A technical support contract that provides more than basic maintenance is not eligible for E-rate discounts. Funding for basic maintenance is not subject to the provisions indicated in the document "'Two Out of Five Rule' for Internal Connections," available in the SLD Reference Area of the USAC web site. *All requests in this category will be treated as recurring services with services to be delivered within the July 1 to June 30 Funding Year* (emphasis added).

Accordingly, USAC has treated the Basic Maintenance of Internal Connections as a recurring service since that time, even though the Commission, to the best of our knowledge, did not instruct USAC to do so. This treatment causes difficulties and hardships for both applicants

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[5]See *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Third Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 26912 at Para 21, (2003) (*Schools and Libraries Third Order*), which states: "We instruct USAC to revise Block 5 of the FCC Form 471 to include a separate category of service for maintenance requests, with this form change to take effect for Funding Year 2005. Maintenance requests will continue to be funded as Priority Two funding. However, maintenance requests will be considered for funding separately from other requests for Priority Two funding and, therefore, will not be subject to the twice-every-five years funding rule we adopt in this Order. The revision of the FCC Form 471 will allow efficient review of the Priority Two funding requests."

and service providers. We have outlined the problems below, along with suggestions for fixing them.

In today's marketplace, many Basic Maintenance services are sold on a 12-month basis with a one-time annual cost. These include manufacturers' warranties and maintenance contracts that provide failed hardware replacement as well as software updates, patches, and bug fixes. As a rule, services rendered under these types of maintenance contracts are provisioned on an as-needed (or "break-fix") basis, meaning that services are only rendered when an "event" (usually hardware or software failure) has occurred. Because of this, it is difficult for applicants and service providers to determine a true monthly value for such a contract. As an example, suppose an eligible network switch experiences a failure in July and is replaced under the manufacturer's maintenance contract. While the actual services rendered under the contract occur in July, the benefit extends for the remainder of the contract (assuming no additional failures are experienced during the contract period.) Many manufacturers provide this type of maintenance service for a specified period of time after hardware is purchased, and then offer "renewals" for subsequent time periods.

Because they are treated as a Priority Two service, Basic Maintenance funding requests are reviewed and funded by USAC much later in the funding year than requests for Priority One services. However, USAC's current interpretation of FCC policy mandates that Basic Maintenance services be rendered in the July 1 to June 30 timeframe. Under this scenario, for an applicant to receive the full benefit of a 12-month maintenance contract (and receive E-rate support for that contract within a single funding year), they likely will be required to:
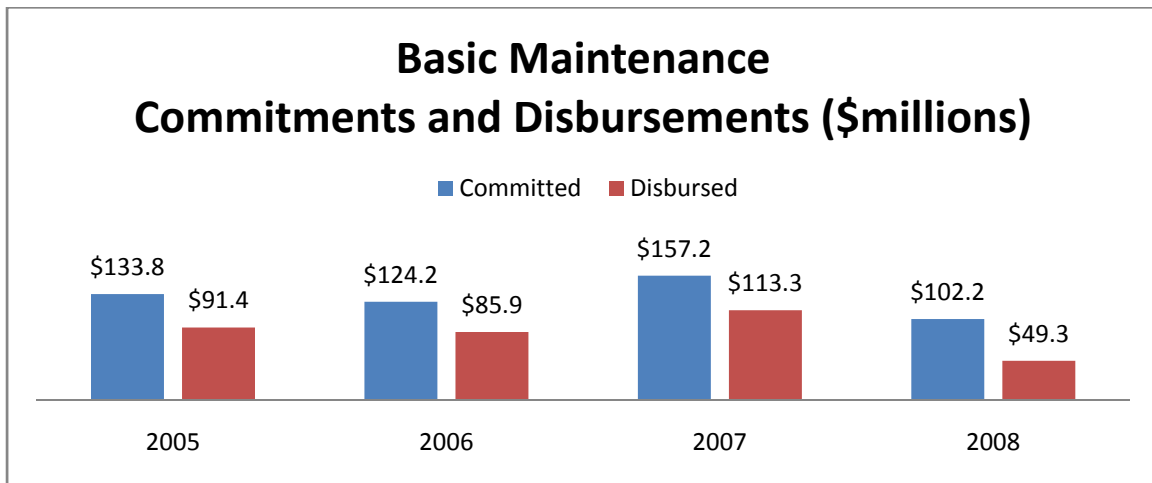
1. align their maintenance contract term(s) to match the dates of the E-rate funding year;
2. pay the service provider(s) in full for maintenance service when E-rate funding requests for those services are still pending

It is never easy and sometimes impossible for applicants to achieve. Many public school districts and library systems (especially those with high E-rate discount rates) have extremely tight budgets and are simply not able to pay for 100% of the maintenance contracts for eligible

equipment upfront without the promise of E-rate support. In addition, it is often difficult for applicants to re-align their yearly contract terms to match the E-rate funding year dates without experiencing a lapse in coverage.

This results in funding commitments going unutilized. As illustrated in the following chart, over $177 million in Basic Maintenance funding commitments have not been disbursed by USAC. This represents more than one-third of <u>all</u> Basic Maintenance funding commitments.

Basic Maintenance
Commitments and Disbursements ($millions)

■ Committed   ■ Disbursed

Year	Committed	Disbursed
2005	$133.8	$91.4
2006	$124.2	$85.9
2007	$157.2	$113.3
2008	$102.2	$49.3

To further confuse matters, many Basic Maintenance funding requests are inseparably tied to applicants' Internal Connections projects, meaning that in any given funding year an applicant will purchase new equipment (via an Internal Connections funding request) and maintenance on that equipment (to begin once the equipment is installed). If the E-rate funding request(s) supporting the equipment purchase are not approved until late in the funding year, it is impossible for the applicant to start maintenance services on July 1, as the equipment to be maintained will not yet be purchased and installed.

The entire manner in which Basic Maintenance requests are funded results in a good deal of frustration within the applicant community. Because maintenance services oftentimes cannot begin on the July 1 funding year start date, coverage provided under a 12-month maintenance contract purchased in the middle of a funding year will stretch into the following funding year. However, the "break-fix" nature of the contracts make determining a monthly cost-allocation very difficult, and accounting for services rendered under "multi-year contracts" involve a

substantive amount of additional E-rate regulatory compliance as well as complications during the procurement process.

In Funding Year 2005, USAC issued decisions on only 6.8% of the total Basic Maintenance funding requests (representing 8.4% of the total dollars requested) before the July 1, 2005 funding year start date. Furthermore, 22.5% of the Basic Maintenance funding requests (23.4% of the total dollars requested) were not issued a funding decision until after June 30, 2006, the funding year end date[6]. When USAC issues these kinds of decisions late, it forces the late-funded applicants to pay for 100% of the maintenance services upfront, thereby effectively revoking their right under the E-rate program to receive discounted invoices, which, in many cases, leads to undue, unfair, and unnecessary economic hardship.

In an effort to make Basic Maintenance funding more useful to applicants and the distribution of E-rate support more equitable, FFL suggests the following three changes:

1. Treat Basic Maintenance in a manner consistent with other Priority Two services.
2. Allow Basic Maintenance services to extend beyond the June 30 end of the funding year.
3. Allow Applicants to file service delivery deadline extension requests for Basic Maintenance when applicable.

These suggestions would allow more applicants to make better use of their Basic Maintenance funding commitments. The advantage to the E-rate program, of course, is that applicants will be more likely to purchase the maintenance needed for the upkeep of equipment purchased with E-rate support.

8. VIRTUALIZATION SOFTWARE ELIGIBLE INTERNAL CONNECTIONS

The ESL glossary defines virtualization software as software that "allows for the creation of multiple virtual servers on a single server." FFL agrees with USAC that if the virtual server's actual server counterpart is eligible, then the software necessary to create the virtual server

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[6] Analysis current as of August 9, 2007, using http://www.eratemanager.com.

should also be eligible. This is a common sense addition to the ESL that will enable applicants to pursue more cost-effective means of implementing server functions that are already eligible.

9. SPECIFICATION OF PRODUCTS OR SERVICES NOT ELIGIBLE FOR DISCOUNTS

Broadcast Messaging

We agree with USAC that broadcast messaging is ineligible as such services represent sources of content, rather than conduits for the transportation of information.   We are concerned, however, that the "ineligible" label may lead, inadvertently or otherwise, to the improper denial of funding for the telecommunications component of broadcast messaging services, which, contrary to the service itself, is clearly eligible.   Thus we urge the Commission to direct USAC to add the caveat that any telecommunications services necessary to make broadcast messaging services operational should continue to be eligible, provided of course that these services satisfy all of the program's other eligibility requirements. This treatment would be consistent with other content-based services described in the ESL, such as videoconferencing.

Power Distribution Units

We agree that surge protectors and power strips should remain ineligible irrespective of their level of technical sophistication. What worries us though is that USAC reviewers and later auditors may interpret the definition of "Power Distribution Units" too broadly, leading to the denial of funding to power supplies that are currently eligible. For example, many manufacturers produce and sell eligible Internal Connections products which require separately priced power supplies. These power supplies serve as the sole source of electrical power delivery to the device, and, because of that, the equipment is inoperable without its accompanying power supply. Our concern is that PIA reviewers and auditors may identify such power supplies incorrectly as ineligible "power distribution units," even though they are clearly required for the operation of eligible components. Accordingly, we recommend that USAC add the explicit caveat that the definition of a "power distribution unit" does not include power supplies that serve as the sole source of electrical power for eligible equipment, and that such devices are eligible.

Video On-Demand Servers

The problem with this proposal, we believe, is that USAC has selected a label that is much too broad for the type of server functionality that it wants to make clear is ineligible. If the Commission approves this proposal, the "video on demand" label is likely to capture both eligible and ineligible equipment in its net, creating more problems than USAC intended its solution to solve. That is why we oppose this proposal. Instead and as discussed in more detail below, we suggest that, *rather than attempting to identify a new class of ineligible servers, USAC should focus instead on the specific server functionality that is ineligible.*

In the current marketplace, a wide variety of video equipment from numerous manufacturers is marketed (either explicitly or implicitly) as "video on demand" equipment. This can range from a simple streaming device (which encodes video information from an external source and distributes it to end users) to a more sophisticated device that integrates video content storage, programming and selection software, and encoding and streaming functionality. What is most important, however, is that many (if not most) "video on demand" devices contain a hardware or software video encoder/decoder (CODEC) that is responsible for encoding video information in a format appropriate for distribution to users on a network.

Existing eligibility rules stipulate that video content storage ("end user files other than eligible e-mail files") and equipment used to control the selection of video content (when operated by end users) are currently ineligible for E-Rate funding. However, the ESL does state that CODECs and Video over IP equipment are eligible for support when deployed and used in an eligible manner. Consequently, devices that perform both eligible and ineligible functions (such as many of the devices commonly referred to in the marketplace as "video on demand" servers) are typically cost-allocated in order to establish a fair division between eligible and ineligible functionality.

Because the definition of the term "video on demand server" may differ from manufacturer to manufacturer (or even between devices produced by the same manufacturer), we propose that the FCC could better assist E-rate stakeholders in determining the eligibility of video distribution devices (and cost-allocating multi-function devices) by more clearly articulating specific areas of *functionality* which qualify for E-rate funds.

USAC's proposed glossary definition states that a "video on demand server stores videos which are available for retrieval at any given time." This is problematic, as we mentioned before, because "video on demand server" as a name for a server is ambiguous due to the variety of usage commonly observed in the marketplace. On the other hand, however, the proposed definition given for the VOD server clearly identifies an area of functionality: the storage of video content. We would propose, therefore, that rather than identifying "video on demand" servers as ineligible components, the ESL should include "video content storage" in the list of ineligible server use and/or ineligible storage product section(s).

We believe that this approach will be easier for E-rate stakeholders to understand: any product (irrespective of its trade name or marketing jargon), which contains video storage capacity, will not qualify for E-rate funds unless properly cost-allocated. Moreover, we believe that the existing ESL guidance regarding "equipment that controls the programming, distribution, and selection of video content," "CODECs / Video Encoders," and "Voice/Video over IP Components" describe areas of functionality in a manner that is helpful for E-rate stakeholders when determining which types of video devices (or which functional areas of a multifunction device) qualify for E-rate funds.

Softphones

We agree that Softphones should be included on the ESL as ineligible end-user software. As Softphones provide the same functionality as ineligible handsets, we see no reason why Softphone software should not be ineligible, too. This clarification should be helpful to applicants and service providers who are trying to determine the eligibility of voice-over-IP telephone systems.

Interactive White Boards

Interactive white boards are end-user devices and, as such, are clearly ineligible.

E-mail archiving

The delivery and storage of e-mail has been eligible for E-rate discounts since the program began. In our opinion, the proposed designation of e-mail archiving as ineligible will create undue confusion among applicants, service providers, and program administrators as they

attempt to determine what functional areas of a comprehensive e-mail solution constitute ineligible "archiving" as opposed to eligible e-mail storage or the backup of eligible e-mail servers.   The cost of storing/backing up/archiving e-mail is incredibly low, and getting lower all of the time. The cost of administering this proposed change – long and difficult PIA reviews, debates over cost allocation, USAC appeals, FCC appeals, challenged audit findings, and so on – will be incredibly high.   For all of these reasons, and since we are quite sure that the program has been funding archived e-mail for years anyway, we urge the Commission to stay the course. Instead of finding that e-mail archiving will now be ineligible, the Commission should instruct USAC to clarify that e-mail archiving is eligible.

As schools and libraries become more dependent on e-mail and Internet-based communications, their technological needs become increasingly complex. As the volume of e-mail traffic at a school or library increases (along with increasing federal and state legislation mandating administrative oversight of electronic communication), it becomes quickly apparent that schools and libraries require more than a simple e-mail server (or servers) in order to effectively implement safe, reliable, and regulatory compliant e-mail services for their end-user populations.

As the needs of organizations have changed, so too has the complexity and variety of solutions available to meet those needs. E-mail services (whether owned or procured as a service) have subsequently become much more robust, offering features which enable schools and libraries to provide e-mail service to users in a way that meets organizational (and regulatory) goals in a cost-effective manner.

As administrative recordkeeping pressures increase, e-mail archiving becomes an essential part of a larger strategy for effective delivery of e-mail services within public organizations. As a result, many commercially available solutions include e-mail archiving as an integrated component of a comprehensive approach to service delivery.

The Commission's current (and proposed) ESL stipulates that e-mail servers, storage products used to store e-mail files, and tape backup of eligible e-mail servers are all eligible components when deployed in an eligible manner.   Declaring now, in stark contrast to well-

established e-mail storage rules, that USAC reviewers must now begin to assess in all cases where storage ends and archiving begins is, we submit, a recipe for an administrative meltdown. The time and money that USAC (and down the road the auditors) will be forced to invest in storage versus archiving detective work will far outweigh any cost savings that could possibly be derived from not supporting e-mail archiving.

Finally, please note that an e-mail archiving system could easily be characterized as an "intelligent" e-mail storage system, one that facilitates the storage of e-mail files in an efficient, organized manner. When properly implemented, e-mail archiving can substantially reduce the workload on primary e-mail servers (and subsequent storage systems), representing a significant cost savings in e-mail infrastructure while not providing additional redundancy to an e-mail solution. Therefore, for all of the above reasons, we recommend that all forms of e-mail delivery and storage, including archiving, remain eligible for E-rate discounts.

SECTION 3: POWERED FAILOVER AND REDUNDANT EQUIPMENT ELIGIBLE

Powered failover and redundant equipment should be added to the eligible services list. The relevant portions of the current draft ESL state:

> "Components that are installed in standby mode, redundant, not active and online, or otherwise not an essential element in the transmission of information within the school or library." *(Ineligible Internal Connections Components, 17)*

> "Duplicative products or services are not eligible. Any product or service that is duplicative of a service already requested or being used by the applicant will not be eligible. Services that provide necessary bandwidth requirements consistent with an applicant's Technology Plan, such as multiple T-1 lines when appropriate for the population served and the services to be received, are not duplicative.

> Failover products or services are not eligible. Any stand alone products or services that are only utilized when the primary fails are not eligible."*(Other Miscellaneous Ineligible Components, 23)*

We agree that the Commission should not make funding available for duplicative services. Because there is only a limited amount of support available, the Commission must establish regulations that allow funding to be used in the most efficient manner possible, and for as many beneficiaries as possible.

We also support the Commission's interest in ensuring that local area networks supported by E-rate funding operate reliably. Evidence of this interest is supported, in part, by the provision of funding for "data protection" components such as firewalls (which ensure that network operation is not interrupted due to unauthorized intrusion or access to the network) and uninterruptible power supplies (which ensure network operation in the event of an electrical power failure.) In providing funding for such components, program regulations ensure that supported networks perform with a degree of reliability that is considered acceptable (or "standard") by marketplace standards.

In modern networks, reliability is achieved through a combination of techniques including proper configuration, routine maintenance, protection from hazards outside the network, and redundancy of critical network components. The Commission has clearly identified the need for three of these techniques and supports them accordingly with E-rate funding. However, even a properly configured, maintained, and protected network can experience substantial reliability issues without some manner of redundancy for critical (and failure-prone) components.

We believe that some types of redundancy can clearly be designated as critical network infrastructure and, as such, are congruent with both the letter and spirit of what the Commission has concluded consistently should be eligible. However, it is obvious that there must be an established standard for determining what type(s) of failover or redundant functionality are considered critical for reliable network operation and what types constitute duplicity.

We contend that, to a certain extent, the marketplace has established this designation for us. Equipment manufacturers, in an effort to design reliable and efficient products, have established redundancy standards that allow them to specify solutions that meet or exceed the degree of reliability demanded by the marketplace. As a result, many modern network infrastructure and server products incorporate redundant components by design, especially in instances where mechanical parts are utilized.

As an example, many (if not most) server products ship with redundant power supplies. During normal operation, both power supplies remain connected to both electrical power and the

internal components of the server. In the event that one power supply experiences failure, the other ensures that the server continues operation. In this manner, the services provided by the redundant power supplies establish the functional equivalent of an uninterruptible power supply – the equipment continues to operate in the event of a power failure. Therefore, this type of redundancy should not be considered duplicative, but rather a critical protective element necessary to establish service. The power that these equipment-integrated devices supply is every bit as important to the reliability of a network as UPS equipment. UPS equipment and redundant power supplies are two sides of the same coin, as both are absolutely critical and necessary for the movement of information across networks and to the classroom. Both types of equipment, therefore, are "internal connections," as the law defines that term.

Recommendation

Because the Commission has established eligibility rules to ensure that critical network infrastructure receives funding, and because some manner of redundancy is critical for that infrastructure to perform its primary function, **we recommend that the Commission instruct USAC to amend the 2010 ESL to include components that provide critical, redundant functionality for local area network infrastructure as eligible for E-rate support.**

This amendment would serve applicants and the program equally well. Applicants would be able to ensure that a single device would be able to perform its primary duty with an acceptable degree of reliability, while at the same time the Commission's interest in prohibiting support for duplicative services would remain protected. As an example, an applicant whose network design specifies one e-mail server may deploy a server product that employs redundant components in order to maintain reliable operation, but deploying two identical, discrete e-mail servers performing the same function would be ineligible (unless it is established that two servers are required for processing the volume or capacity of e-mail required by the applicant.)

Therefore, with respect to this very specific type of network redundancy, which provides functionality that is absolutely necessary for the operation of reliable local area networks, we recommend that the 2010 ESL be amended to reflect the following:

Redundant *components* of a single hardware device that serves a primary and critical function in an applicant's local area network should be eligible for support. This would include, but not be limited to, redundant power supplies, processing capabilities, and operating instruction storage which remain online and active during normal operation.

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We commend USAC and the FCC for its efforts to clarify the E-rate eligibility guidelines. We encourage the Commission to consider Funds For Learning's recommendations related to the Eligible Services List because we believe these recommendations will further the Commission's efforts to inject more common sense and transparency into the administration of the E-rate program.

Respectively submitted by,

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Chief Executive Officer   President
Funds For Learning, LLC   Funds For Learning, LLC