

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

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

REPLY COMMENTS OF KELLOGG & SOVEREIGN® CONSULTING, LLC

Kellogg & Sovereign® Consulting, LLC (KSLLC) submits these reply comments in response to the Commission's Notice of Proposed Rulemaking (NPRM) published on July 17, 2019 (WC Docket No. 13-184) regarding making permanent the category two budget approach adopted by the Commission in 2014 to fund internal connections.

KSLLC is an E-Rate consulting firm that has managed E-Rate applications for schools and libraries since the inception of the program. At present, KSLLC assists over 315 E-Rate applicants in thirteen states. These applicants range in size from a total of 41 students to applicants with 60,000+ students. The diverse client base provides KSLLC with the ability to see a wide range of schools and libraries and gives them a unique understanding of their various needs from a broad perspective.

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KSLLC submits reply comments as follows:

I. Combine Category Two sub-categories

KSLLC fully supports the comments submitted by the Pennsylvania Department of Education¹, EducationSuperHighway (ESH)², State E-Rate Coordinators' Alliance and Schools, Health & Libraries Broadband Coalition (SECA-SHLB)³, the E-Rate Management Professionals Association (E-mpa)⁴, and other commenters regarding combining the Category Two sub-categories in the Eligible Service List.

A. Technology has converged Category Two sub-categories

As operating software has evolved to Internet cloud services, the functionality that previously was separately provided has now converged into single products. If an applicant purchases a network switch, for example, in many cases the switch will require an operating license that will frequently be a hybrid of maintenance (software fixes and downloads classified as Basic Maintenance of Internal Broadband Connections "BMIC"), managed services (remote network management and monitoring classified as Managed Internal Broadband Services "MIBS") and operating software (software required for basic operation of the network switch classified as Internal Connections "IC").

Since all three functionalities are eligible for E-Rate discount, there is no reason to require the applicant to split these services out at either the FCC Form 470 (competitive bidding) or FCC Form 471 (application for E-Rate discount) levels. The applicant should be able to request bids for the equipment they need and ask the service providers to provide bids for the equipment requested along with any required licenses. Under the current rules, the applicant must ask for the exact same service under all three sub-categories: IC, BMIC, and MIBS in order to make sure that the functionality of any component or service associated with the equipment requested will be properly posted for bid on the Form 470 and then filed properly on the FCC Form 471.

¹ Pennsylvania Department of Education, Comment, page 3. August 16, 2019. <https://www.fcc.gov/ecfs/filing/108172009025492>.

² EducationSuperHighway, Comment, page 5. August 16, 2019. <https://www.fcc.gov/ecfs/filing/10816989913595>.

³ State E-Rate Coordinators' Alliance and Schools, Health & Libraries Broadband Coalition. Comment, page 24-26. August 16, 2019. <https://www.fcc.gov/ecfs/filing/10816253278092>.

⁴ E-Rate Management Professionals Association, Reply Comments. September 3, 2019. <https://www.fcc.gov/ecfs/filing/10902319626572>.

B. Combining sub-categories in Category Two will significantly reduce administrative burden and unintended denials of needed services.

The current process results in excessive administrative time and unintended denials as the applicants cannot properly determine in advance the exact functionality and cost of the operating licenses.

In their reply comments, E-mpa⁵ provided an example of the calculations required in cost-allocating an operating license. The example demonstrated that applicants and USAC reviewers can spend extensive hours cost allocating and reclassifying operating licenses to move the maintenance component to recurring services and a separate funding request, and to move the management component to recurring services and a separate funding request or deny one or two of the functionalities altogether if they were not originally listed on the FCC Form 470.

By combining the sub-categories for Category Two into a single Category Two section, these issues will be eliminated.

C. Software and licenses to operate equipment, as well as maintenance of eligible equipment, should be requested with the specific equipment for which bids are requested.

KSLLC supports the comments submitted by SECA-SHLB⁶ regarding the method for applicants to report their needs on the FCC Form 470. The applicant should be able to specify the equipment needed first and foremost. On the same section, the applicant should also be able to notify bidders whether they want to consider bids that include: (a) installation and/or (b) operating licenses, maintenance, or management software.

D. Combining sub-categories reduces unintended denials and supports technology-neutral competitive bidding.

It is critical that on the FCC Form 470, the applicant should not be required to separate out the possible required components for a fully functional device. In a technology-neutral, vendor-neutral competitive bid, the applicant will not know in advance exactly how the manufacturer packages the supporting components. Some manufacturers include the functionality in the single item number of the equipment and other manufacturers break out each function into a separate item number. The applicant should only have to specify the equipment needed, and whether they want bids for installation and/or the operating components. To require otherwise will result in unintended denials for those applicants who do not properly break out all options to align with a particular manufacturer's pricing system. Additionally, requiring the break out in advance has negative consequence for the program itself as it rewards applicants who research a

⁵ *Id.* E-mpa, page 4-5.

⁶ *Id.* SECA-SHLB, page 24-26.

particular manufacturer in advance to understand how the manufacturer prices their operating components, and then prepare the FCC Form 470 in alignment with how the specific manufacturer itemizes the operating components. This latter example is an unintended consequence for the E-Rate program itself as it limits vendor neutral/technology neutral competitive bidding.

II. Expand the Eligible Services List

A. Firewall and Cybersecurity Services

KSLLC supports the comments submitted by E-mpa⁷, Cisco Systems, Inc. (Cisco)⁸, Funds for Learning (FFL)⁹, SHLB-SECA¹⁰, and several other commenters regarding expanding the Eligible Services List to include advanced firewall features and cybersecurity solutions that protect school and library networks. Cybersecurity threats are one of the highest priority issues for technology administrators according to Keith Krueger, CEO, Consortium for School Networking (CoSN)¹¹. The K-12 Cybersecurity Resource Center stated the following in its “The State of K-12 Cybersecurity:2018 Year in Review”¹²:

Public K-12 education agencies across the country experienced a total of 122 cybersecurity incidents during calendar year 2018. Many of these incidents were significant, resulting in the theft of millions of tax payer dollars, stolen identities, tax fraud, and altered school records. “Public schools are increasingly relying on technology for teaching, learning, and school operations,” said Douglas A. Levin, president of EdTech Strategies and report author. “It should hardly be surprising, therefore, that they are experiencing the same types of data breaches and cybersecurity incidents that have plagued even the most advanced and well-resourced corporations and government agencies.”

The FCC expanded the Eligible Services List to include firewalls and data protection in 2004¹³. Over the past fifteen years, dependence on data networks has evolved, along with cyber-attackers who capitalize on hacking into, vandalizing, and ransomware computer networks including school and library networks. The only way to protect the school and library networks is to install, implement and maintain sophisticated firewall equipment and cybersecurity solutions that must be constantly updated to protect the network.

In their comments, Cisco made a good point that since cybersecurity features are essential for the operation of a network, “licenses for both hardware and software features are packaged together since there can be

⁷ E-Rate Management Professionals Association, Comment, August 15, 2019, <https://www.fcc.gov/ecfs/filing/1081647558139>

⁸ Cisco Systems Inc. Comment, August 16, 2019, <https://www.fcc.gov/ecfs/filing/108160463409423>

⁹ Funds for Learning, Comment, August 16, 2019, <https://www.fcc.gov/ecfs/filing/10817410113153>

¹⁰ *Id.* SECA-SHLB, page 26.

¹¹ *Are School Districts Starting to Understand the Scope of Security Threats?* January 7, 2019, <https://www.edsurge.com/news/2019-01-07-are-school-districts-starting-to-understand-the-scope-of-security-threats>.

¹² <https://k12cybersecure.com/year-in-review/2018-press-release/> (last visited Sep. 9, 2019)

¹³ https://www.usac.org/res/documents/sl/pdf/ESL_archive/EligibleServicesList_101003.pdf

many specific features that are needed for proper network operation and security for schools”¹⁴. Manufacturers are incorporating security functionality into network equipment and operating software as a standard feature. It makes logical sense to include the security functionality as an eligible service which will both support the protection of the network and significantly reduce the administrative burden of cost-allocating the security features.

Therefore, KSLLC agrees with the previous commenters and recommends that the Commission carefully consider the value of cybersecurity solutions in protecting and preserving the investments made in school and library networks. As explained by the previous commenters, these services are necessary for the preservation of the school and library networks and should be included in the eligible services subject to the school or library’s category two budget.

B. Clarify educational purpose for data distribution equipment and cabling – no cost allocation of E-Rate eligible equipment is required for end user devices connected

KSLLC agrees with the comments submitted by the West Virginia Department of Education¹⁵ regarding clarification of the educational purpose for E-Rate eligible equipment. Clear and concise clarification is needed to explain that data distribution equipment and network cabling and connectors are fully eligible regardless of the end-user equipment connected to the data distribution equipment or network cabling and connectors.

KSLLC recommends that the Commission clarify that the educational purpose as originally codified in the *Second Report and Order*¹⁶ applies to all “activities that occur in a library or classroom or on library or school property.” It is KSLLC’s understanding that during recent audits, audit findings were issued to applicants stating that the applicant was required to cost allocate the cost of an eligible network switch if one or more of the ports had security cameras at the end of a network cable plugged into a port in the switch.

By definition, all end user items that are supported by a network switch are not eligible for E-Rate discount because end user equipment is not eligible for E-Rate discount. The network switch itself is eligible for E-Rate discount because its job is to distribute high-speed broadband throughout school buildings and libraries¹⁷. If a printer or workstation is connected to the network cable that is plugged into the network

¹⁴ *Id.*, Cisco, page 5

¹⁵ West Virginia Department of Education Comments, August 16, 2019. <https://www.fcc.gov/ecfs/filing/1081698507941>

¹⁶ *Schools and Libraries Universal Service Support Mechanism, Second Report and Order and Further Notice of Proposed Rulemaking*, CC Docket No. 02-6, 18 FCC Rcd 9202, 9208, ¶ 17 (emphasis added).

¹⁷ See *Sixth Report and Order*, 25 FCC Rcd at 19808, ¶ 105; *E-rate Modernization Order*, 29 FCC Rcd at 8917, ¶ 119 (“limit[ing] internal connections support to those broadband distribution services and equipment needed to deliver broadband to students and library patrons: routers, switches, wireless access points, internal cabling, racks, wireless controller systems, firewall services, uninterruptable power supply, and the software supporting each of these components used to distribute high-speed

switch, no cost allocation of the network switch is required. In the same manner, if a security camera or voice equipment is connected to the network cable there is no more reason to cost allocate the port on the network switch than there is for a printer or computer workstation or any other end user device.

The network switch and network cabling and connectors are eligible for E-Rate discount. The network switch and network cabling and connectors are located on school property and therefore meet the educational purpose standard as described in the *Second Report and Order*. The network switch and network cabling and connectors, therefore, should be eligible regardless of what is plugged into the ports of the switch or connected by the network cabling.

With the category two budget cap, there is no reason to be over-zealous in denying a school or library's decision on how to spend their limited category two funds. If they choose to use their funding for eligible equipment that connects end user equipment of any type, the school or library should still receive E-Rate discounts on the eligible data distribution equipment or cabling itself. The applicants are not asking the E-Rate program to provide discounts on the end user equipment. They are only asking for E-Rate discounts on the eligible data distribution equipment or cabling and connectors.

To make an even stronger point on this, the school or library would not be spending their funds on the end user equipment if there was not an educational purpose for the end-user equipment. Applicant schools and libraries do not have excessive funds. If they are choosing to pay 100% of the cost of end user equipment such as security cameras, phone systems, workstations, netbooks, etc., they are making the investment because these end-user devices are required for the operation of the school or library. Security is the number one concern of schools and libraries across the country. If schools are not safe, then no education can take place. If a library does not provide a secure environment, then no patrons will be able to come to the library. Both security cameras and voice services are required before education can begin. Communications and safety are paramount in both settings and just as important as printers, computer workstations, netbooks, tablets, smart phones, and all other end user devices that are connected to the network. E-Rate auditors do not ask how many netbooks or tablets are connected to the network to be cost allocated. Even though voice calls can be made on a wide range of end-user devices, the number of iPads or Chrome Books connected to a network are not determined and then cost allocated from the cost of the network access points. Video conferencing equipment, cameras and microphones connected to computer workstations all communicate both voice and video across the school or library's Internet. These various end user devices connect to the Internet and can communicate video as well as voice. KSLLC is not aware of a case where there was an assessment of all the end-user devices and then end-user devices cost allocated

broadband throughout school buildings and libraries"); *see also 2015 ESL and Order*, 29 FCC Rcd at 13409, ¶ 14.

out of the cost of the network switches, access points and cabling and connectors. To do this would simply be nonsensical, nonproductive, and harmful to the goals of the E-Rate program. To associate the number of ports in a switch with ineligible end user equipment and then deny funding because the switch sends data to the ineligible end user equipment would make all data distribution equipment and cabling and connectors ineligible for E-Rate discounts which would most certainly be an unintended consequence of this line of thinking.

Therefore, we recommend that the Commission clarify that the data distribution and cabling components of the network should be fully eligible for E-Rate discount regardless of what end-user equipment is connected to the eligible equipment or cabling.

C. Clarify that cost allocation is necessary for back up devices

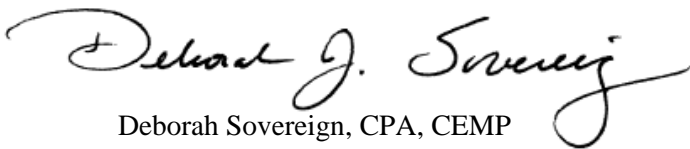
KSLLC also respectfully requests that the Commission clarify that the eligibility of an uninterruptible power supply (UPS) or other backup device should not be confused with the eligibility of data distribution equipment or cabling and connectors. A UPS or other backup device is only eligible if it supports eligible equipment. The portion of E-Rate eligible equipment supported by (i.e. plugged into) the UPS will determine the portion of E-Rate eligibility of the UPS or backup device.

III. Conclusion

KSLLC sincerely appreciates the opportunity to submit reply comments regarding the category two budgets and expansion of the eligible services to provide the services necessary to protect the valuable investments made in school and library networks across the country.

Respectfully submitted,

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