



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

Initial Comments of the State E-rate Coordinators' Alliance
In Response to DA 20-767
Proposed Eligible Services List for FY 2021

The State E-rate Coordinators' Alliance ("SECA") offers the following initial comments to the proposed Eligible Services List for FY 2021 ("Draft ESL") for the E-rate year beginning July 1, 2021.¹

These initial comments seek to clarify the E-rate Eligible Services List for FY 2021. We have delineated our requests into two overarching groups: (1) those requests that SECA believes are within the scope of existing FCC Orders and regulations, and therefore, we respectfully submit, are within the purview of the Wireline Competition Bureau ("WCB" or "Bureau") to grant relief in finalizing the FY

¹ SECA does not have any comments to the two substantive proposed changes to the Draft ESL that are not controversial. First, the reference to Category Two budgets was modified to reflect that the budgets will be administered at the district or library system level beginning in FY 2021. Second, the Draft ESL notes that equipment manufactured by Huawei Technologies Company and ZTE Corporation is not eligible for E-rate funding due to national security concerns. We concur with these modifications.

2021 Draft ESL;² and, (2) requests that expand the current scope of the Draft ESL and therefore may require a further proceeding such as a Notice of Proposed Rulemaking.³

I. **Requests Within the Scope of Existing FCC Orders and Regulations and Therefore Within the Purview of the Bureau to Address in Finalizing the FY 2021 Eligible Services List.**

- A. **The Category Two Section of the Eligible Services List Should Acknowledge There is Overlap Between Internal Connections, Managed Internal Broadband Services and Basic Maintenance of Internal Connections.**

The three subcategories of Category Two equipment and services presented in the Draft ESL are listed as discreet and independent groups of services and equipment but in practice, vendors' service and equipment components overlap, and often fit into more than one subcategory. This is an important clarification that should be added to the FY 2021 Eligible Services List, to ensure that this

² Subsection (d) of 47 C.F.R. Section 54.502 states: "The Administrator shall submit by March 30 of each year a draft list of services eligible for support, based on the Commission's rules for the following funding year. The Wireline Competition Bureau will issue a Public Notice seeking comment on the Administrator's proposed eligible services list. The final list of services eligible for support will be released at least 60 days prior to the opening of the application filing window for the following funding year." *See also Modernizing the E-rate Program for Schools and Libraries*, First Report and Order and Further Notice of Proposed Rulemaking, WC Docket No. 13-184, FCC 14-99 (Released July 23, 2014), ¶ 129 (delegated authority to the Bureau to interpret Managed Internal Broadband Services); ¶ 160 (delegated authority to the Bureau to revise and oversee form standardization to implement the Order; ¶ 189 (re-affirmed the authority of the Bureau to issue orders interpreting the E-rate rules as necessary to ensure that support for services provided to schools and libraries operate to further our universal service goals. *See also Modernizing the E-rate Program for Schools and Libraries*, Second Report and Order and Order on Reconsideration, WC Docket No. 13-184, FCC 14-189, WC Docket No. 13-184 (Released December 19, 2014), ¶ 184.

³ SECA is raising all of its ESL-related recommendations in these initial comments, even those that may be viewed as beyond the scope of this proceeding since there currently is no other proceeding in which to raise these requests. We request the Bureau to incorporate all the recommendations into the final FY 2021 ESL that are within the Bureau's authority to address. SECA also requests the Bureau or FCC to initiate a separate proceeding to address any recommendation that is beyond the scope of the current Public Notice or the Bureau's delegated authority.

overlap is appropriately acknowledged and incorporated into the application review process.⁴ ***It is critical that the substance of an applicant’s request for specific services or equipment that is set forth in their narrative text box in their Form 470 (or in an accompanying RFP) should prevail over whether they selected a specific Category two subcategory on their Form 470. This clarification is essential to alleviate the numerous technical competitive bidding denials that applicants experience each year.***

This request is in furtherance of the Commission’s directive in the Category Two Order that the Bureau “should address ongoing issues related to the application of the eligible services rules with respect to category two services by providing clarifications in instances where the terminology used in our rules do not align with the terminology used by service providers in the context of bid responses and invoicing or has otherwise caused applicant uncertainty or confusion about how to request category two services.”⁵ This is illustrated by the following examples and conditions.

First, Category Two **equipment** may be classified as either internal connections or as managed internal broadband services. The responsibility for managing and operating the equipment determines the proper subcategory. Equipment is classified as internal connections when the applicant leases or purchases the equipment from a vendor, separate from contracting with a different vendor to manage and operate the equipment or to perform those functions internally. Equipment is classified as

⁴ Currently, whenever the funding request on a Form 471 is in a Category Two subcategory that was not included on a Form 470 as a service request, the funding request is denied in full due to a perceived competitive bidding violation. In the FCC’s Public Notice seeking comments on the Form 470 drop down menu, SECA has recommended form changes to eliminate this problem by collapsing the Category Two subcategories into one menu. These changes will be considered, and we hope will be adopted for FY 2021. In the meantime, we request this clarification to the FY 2021 Eligible Services List to resolve this problem where applicants are being denied funding based on a technicality where they forgot to check a particular box on the Form 470.

⁵ *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order, FCC 19-117 (Released December 3, 2019) at ¶ 47 (“Category Two Order”).

managed internal broadband services when the applicant contracts with a vendor to lease the equipment and manage the equipment for the applicant. Thus, leased equipment may fall into either the internal connections or managed internal broadband services subcategories.

Second, certain Category Two services may fall under either basic maintenance of internal connections or managed internal broadband services, or both. The following definitions are set forth in the FY 2021 Draft ESL (emphasis added):

Basic Maintenance of Internal Connections	Managed Internal Broadband Services
Basic maintenance and technical support appropriate to maintain reliable <i>operation</i> when provided for eligible broadband internal connections	Services provided by a third party for the <i>operation</i> , management, and monitoring of eligible broadband internal connections are eligible managed internal broadband services (e.g., managed Wi-Fi)
Includes: <ul style="list-style-type: none"> • Repair and upkeep of eligible hardware • Wire and cable maintenance • <i>Configuration</i> changes • Basic technical support including online and telephone-based technical support • Software upgrades and patches including bug fixes and security patches 	Includes: <ul style="list-style-type: none"> • Management and <i>operation</i> of the LAN/WLAN, including installation, activation, and initial <i>configuration</i> of eligible components and on-site training on the use of eligible equipment

When a third-party vendor manages, operates, and monitors the equipment, if the equipment malfunctions or requires maintenance to be performed by the third-party vendor, those services are classified as managed internal broadband services. When the applicant manages and oversees the equipment, however, if the equipment malfunctions or requires maintenance, the service is then classified basic maintenance of internal connections. Both subcategories include certain configuration services. Both subcategories include the operation of the equipment; basic maintenance addresses those services that allow for the reliable operation of equipment whereas managed internal broadband services require the third-party vendor to operate the equipment.

Third, **licenses and software to operate internal connections** may be classified as internal connections or basic maintenance of internal connections. Some vendors combine “right to use” licenses with their manufacturer support services, such as technical support, software updates and security patches, into a single component. These licenses should be considered internal connections and should qualify for E-rate funding regardless of whether the applicant selected a basic maintenance service request in addition to an internal connections service request in their Form 470. Further, the rules for funding of all licenses and manufacturer support services should be identical: the prepayments of multiple year licenses and manufacturer support services should be eligible for funding in the first year of purchase.

The final version of the ESL should note that there can be overlap among internal connections, managed internal broadband services and basic maintenance of internal connections. Further, as long as the applicant’s Form 470 **or** associated RFP contains a description of the requested services or equipment, applicants should not be penalized with a funding denial citing a competitive bidding violation in the event the applicant’s Form 471 seeks funding for a Category Two subcategory that was not included on the establishing Form 470 drop-down selections. By focusing on the substance of the Form 470 and RFP and determining that the information contained in the Form and RFP should prevail over whether the applicant selected a specific subcategory on their Form 470, the FCC will avoid penalizing applicants for a technical infraction that is akin to a ministerial and clerical error.⁶

⁶ This approach does not diminish the ability of interested bidders to submit proposals, since all prospective bidders have access to the narrative text descriptions and RFP documents that are part of Form 470 applications. These text descriptions provide more details and explanations of the applicant’s service requests and provide actual notice to bidders of the scope of the Form 470. Bidders therefore have the opportunity to

Footnotes continued on the next page.

B. Cost Allocation Should Not Be Required to Deduct Costs of Data Distribution Equipment or Communications Cabling Depending on the Specific Devices Attached to the Equipment or Cabling.

Earlier this summer, SECA submitted an *ex parte* request for clarification of the cost allocation requirement for communications cabling and data distribution equipment because of concerns that the E-rate administrator was misapplying FCC regulations and orders.⁷ Depending on what equipment is attached to the cabling or data distribution equipment, USAC has been requiring applicants to remove a portion of their funding requests if eligible Category Two equipment is connected to ineligible equipment, even though the eligible Category Two equipment is used for educational purposes inside schools and libraries to facilitate the availability of broadband throughout the buildings. These inquiries and actions have occurred during pre-funding reviews as well as post commitment reviews.⁸

submit proposals for the services and equipment whether or not the corresponding Category Two subcategory is selected on the Form 470. USAC's Form 470 tools enable any interested party to view a Form 470 or download 470 information in an Excel table format. Both tools include the narrative text field information. See <https://data.usac.org/publicreports/Forms/Form470Rfp/Index> and <https://data.usac.org/publicreports/Forms/Form470Detail/Index>. The **view** Form 470 tool provides a summary of the application as certified including the narrative description of Category One and/or Category Two service requests. The **download** Form 470 tool provides an Excel file that includes the verbatim narrative text from the applicants' Form 470s in Columns BR and BS of the report.

⁷ <https://www.fcc.gov/ecfs/filing/107172910708979>, Schools and Libraries Universal Service Support Mechanism, CC Docket No. 02-6, *Ex Parte Notice and Submission Requesting Educational Purposes Test to Govern Cabling and Data Distribution Equipment Eligibility* (filed July 17, 2020).

⁸ See, e.g., Form 471 # 201012963, FRN 2099016414 in which the applicant was asked during the pre-funding review (PIA process) for a list of all equipment, including make and model number, that will be supported by the cabling. In examining the Open Data information on the USAC web site, it is impossible to determine how many applicants have been requested to answer these questions and have been subject to partial funding reductions. The description of funding denials and funding reductions do not contain this level of detail. Further it is impossible to discern how many funding requests were denied due to an applicant's lack of understanding of the PIA inquiries and their inability to respond to the questions in a timely matter.

Footnotes continued on the next page.

The Draft ESL states the following with respect to the eligibility of internal connections:

The second category of equipment and services eligible for E-Rate support, Category Two, includes the internal connections needed for broadband connectivity within schools and libraries. Support is limited to the internal connections necessary to bring broadband into, and provide it throughout, schools and libraries. These are broadband connections used for educational purposes within, between, or among instructional buildings that comprise a school campus (as defined below in the section titled “Eligibility Explanations for Certain Category One and Category Two Services”) or library branch, and basic maintenance of these connections, as well as services that manage and operate owned or leased broadband internal connections (e.g., managed internal broadband services or managed Wi-Fi).

There is no limitation or restriction that would preclude eligible internal connections equipment or facilities to be connected to ineligible components provided that the equipment and facilities are used for educational purposes and the eligible internal connections are located within an eligible school or library building.

“Educational purpose” is defined as: “[A]ctivities that are integral, immediate, and proximate to the education of students, or in the case of libraries, integral, immediate and proximate to the provision of library services to library patrons, qualify as ‘educational purposes.’ Activities that occur on library or school property are presumed to be integral, immediate, and proximate to the education of students or the provision of library services to library patrons.” 47 C.F.R. §54.500. Simply because

There are some examples of this practice being applied to justify commitment adjustment decisions in response to post-commitment reviews. See Request for Review of Facility Solutions Group, Inc., Attachment, January 29, 2016 Notification of Improperly Disbursed Funds Recovery Letter. <https://www.fcc.gov/ecfs/filing/60001675904>; <https://ecfsapi.fcc.gov/file/60001710082.pdf>. The FCC denied a subsequent request for review in Streamlined Resolution of Requests Related to Actions by the Universal Service Administrative Company, CC Docket Nos. 96-45 and 02-6, WC Docket No. 06-122, DA 16-1320, File No. SLD-76002 (released November 30, 2016), Note 27. The matter is now pending on petition for reconsideration. <https://www.fcc.gov/ecfs/filing/1214431430753>.

Also, the FCC’s decision against Facility Solutions Group, Inc. has been cited to justify an adverse audit finding against the Winston-Salem/Forsyth County School District, in USAC Audit No. SL2019BE028, relating to cost allocation for deducting ineligible equipment attached to internal connections.

most of these connected devices that are attached to eligible internal connections are themselves ineligible for E-rate funding does not alter their educational purpose. They are all needed to facilitate the availability of broadband connectivity throughout the school or library, and to students and library patrons.

The “educational purpose” definition makes clear there is no bright line between Internet enabled devices that use schools’ and libraries’ internal connections for end user connectivity to the Internet, and all other Internet enabled devices that support and ensure end users are able to access the broadband connectivity inside school and library buildings. For example, a building that is not properly climate controlled, and does not have lights or other utilities, all of which are managed by devices that access the school’s or library’s broadband, and are attached to cabling, switches or routers, cannot operate and be open to students and patrons to facilitate broadband access. Similarly, in order to provide a safe and healthy environment to students, many schools will rely on Internet-enabled thermometers to monitor student temperatures. This use of the Internet is just as vital as the computers that students will use to access the Internet.

This is why the educational purposes definition and presumption should be used to designate all school-owned or library-owned devices that connect to cabling, switches and routers as having an educational purpose and facilitating broadband access, without requiring any cost allocation. This clarification is requested to be included in the FY 2021 ESL so that all interested parties are aware of the proper application of the FCC’s cost allocation rules.

And we ask, somewhat rhetorically, does the Commission really want to get into the minutiae of deciding what connected devices serve—or do not serve— an “educational purpose” and thus

impact the eligibility of the internal connection component? Such an outcome would inject a layer of complexity and uncertainty in the application cycle, would make it very difficult for applicants to submit “clean” applications that meet all program requirements, and would increase the administrative review time for processing applications and issuing funding commitment decision letters.

C. [Connections Between Different Schools on the Same Physical Campus Should Be Eligible as Either Category One or Category Two Service.](#)

The draft ESL proposes to continue the current eligibility explanation for “Connections between buildings of a single school.” The ESL already has clarified that when there are multiple schools in the same physical building, these connections are classified as internal connections. We appreciate this helpful guidance because it reflects the marketplace realities of bidding wiring inside a building. Cabling inside a building, whether the cabling is interconnecting two school entities or simply connecting classrooms back to the network hub or closest distribution frame closet, is generally performed by the same group of vendors, particularly Category Two network integration companies. This group is distinct from Internet or data transmission service providers that specialize in installing cabling and conduit in the public right of way in order to configure wide area network service.

There remains a vexing situation, however, when there are two different schools located on the same parcel of property and the E-rate applicant needs to install a short run of cabling between the two schools to configure their wide area network service. Typically, the E-rate applicant determines that it is most cost effective to install the connection between the two buildings and own the facility rather than leasing a few hundred feet of cable from a telecommunications or fiber provider. In the past, relying on the Fourth Order on Reconsideration in CC Docket No. 96-45, such facilities were considered internal connections since the connection did not cross a public right of way.

The FCC now classifies cabling connections, which typically are short distances, between two different schools that are located adjacent to one another or on the same physical campus as a Category One digital transmission service, since the wiring is not internal to the buildings. However, we respectfully request the FCC to allow applicants the choice to procure these connections through either Category One or Category Two. Applicants are far more likely to obtain more competitive bids in response to a Form 470 seeking Category Two bids for these short haul connections between different schools located on the same campus than posting a Category One service request. The most common manner of procuring these short-distance connections is to purchase and install the facilities because leased facilities typically are not cost-effective and/or not available from commercial vendors. Posting of a service request for Category One self-provisioned facilities requires the issuance of an RFP that also seeks bids for leased fiber options. The PIA review of these service requests is extensive and seems misplaced for these short-distance connections. Since the applicant's funding is capped for Category Two, it should be up to the applicant to decide whether they want to pursue Category One or Category Two funding for this service.

II. [Additional Services that Should Be Eligible for E-rate Funding: Eligibility of Firewall Products and Services Should Include Advanced Security Features.](#)

Part of network monitoring also should include allowance for network security tools, features, and services to protect networks against intrusion and interference. Networks security and intrusion detection services are often bundled together with firewalls, but currently, these features of firewall appliances are not eligible and must be deducted from funding requests for firewall appliances creating another layer of unnecessary complexity. Considering how frequently cyber-attacks occur, it is

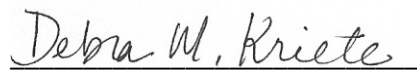
essential that networks be protected against such malicious attacks.⁹ Schools and libraries have been forced to equip themselves with such protection measures, but they must separately bear the burden of these network security costs, because they are ineligible for E-rate funding. This restriction leads to more complex application preparation and processing in order to perform cost allocations to quantify associated costs and remove them from funding requests and for the costs to be borne fully from local budget resources. Allowing advanced network security features to be eligible as part of Category Two firewall service or equipment would also create a level playing field for applicants that select Category One Internet providers who have cleverly chosen to bundle these features with their standard service offerings. As we reference on page two above, if the Bureau or Commission believes it is beyond the scope of this proceeding to include robust security tools as eligible services, we request the opening of a proceeding that does allow input on this and other eligible service issues.

⁹ On June 23, 2020, the FBI's Cyber Division released a Private Industry Notification warning that "Cyber actors are likely to increase targeting of K-12 schools during the COVID-19 pandemic because they represent an opportunistic target as more of these institutions transition to distance learning. K-12 schools have increased their reliance on technology for different school operations, such as teaching, learning, or administrative functions. This shift has created greater risks for schools, as they now must depend on remote tools. In general, however, K-12 institutions have limited resources to dedicate to network defense, leaving them vulnerable to cyber-attacks. Furthermore, public pressure and the threat of releasing victim data may create an elevated urgency for schools to pay ransoms." A copy of the Notice is attached to these initial comments. See also <https://www.zdnet.com/article/fbi-warns-k12-schools-of-ransomware-attacks-via-rdp/>. Even before COVID-19, schools have been regular targets of cyber-crimes and unauthorized network intrusion. See, e.g., <https://www.edweek.org/ew/articles/2020/03/18/cyberattacks-force-schools-to-bolster-online-security.html>

VII. CONCLUSION

SECA respectfully requests the Wireline Competition Bureau to adopt a final Eligible Services List for FY 2021 consistent with the recommendations set forth herein.

Respectfully submitted,



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TLP:GREEN



Private Industry Notification

FEDERAL BUREAU OF INVESTIGATION, CYBER DIVISION

23 June 2020

PIN Number

20200623-001

Please contact the FBI with any questions related to this Private Industry Notification at either your local **Cyber Task Force** or **FBI CyWatch**.

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Ransomware Targeting of K-12 Schools Likely to Increase During the COVID-19 Pandemic

Summary

The FBI is providing situational awareness to stakeholders in the K-12 educational system during the COVID-19 pandemic regarding the ransomware threat. Cyber actors are likely to increase targeting of K-12 schools during the COVID-19 pandemic because they represent an opportunistic target as more of these institutions transition to distance learning. K-12 schools have increased their reliance on technology for different school operations, such as teaching, learning, or administrative functions. This shift has created greater risks for schools, as they now must depend on remote tools. In general, however, K-12 institutions have limited resources to dedicate to network defense, leaving them vulnerable to cyber attacks. Furthermore, public pressure and the threat of releasing victim data may create an elevated urgency for schools to pay ransoms.

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Private Industry Notification

FEDERAL BUREAU OF INVESTIGATION, CYBER DIVISION

Cybersecurity industry reporting indicates that ransomware continues to rise among K-12 schools and represents the second most targeted group of victims behind municipalities. According to an antivirus company, in 2019, 1,233 individual schools were potentially affected by ransomware attacks, while in the first quarter of 2020 there were already approximately 422 individual schools affected.

Threat

- Since at least September 2019, the FBI has observed an increase in ransomware attacks targeting K-12 schools through remote desktop protocol (RDP) vulnerabilities, particularly the Ryuk^a variant.
- The aforementioned ransomware attacks against K-12 schools have occurred with varying levels of debilitating damage, from affecting various systems^b to complete shutdown.
- According to an educational network security firm, cyber actors using ransomware have shifted to threatening to release victim data publicly, in addition to leaving systems locked if ransom demands are not met.

Recommendations

The FBI does not encourage paying a ransom to cyber actors. Paying a ransom may embolden adversaries to target additional organizations, encourage other criminal actors to engage in the distribution of ransomware, and/or may fund illicit activities. Paying the ransom also does not guarantee that a victim's files will be recovered. However, the FBI understands that when schools are faced with an inability to function, administrators will evaluate all options to protect their communities. Regardless of whether you or your organization have decided to pay the ransom, the FBI urges you to report ransomware incidents to your local field office. Doing so provides investigators with the critical information they need to track ransomware attackers, hold them accountable under US law, and prevent future attacks. In addition to the above recommendations, the following actions are also suggested:

^a Ryuk – A form of ransomware that blocks access to a system or device using encryption. Ryuk is generally deployed via email phishing or exploitation of RDP.

^b K-12 school systems can encompass, but is not limited to, those that provide administrative, financial, management, and communication capabilities.



Private Industry Notification

FEDERAL BUREAU OF INVESTIGATION, CYBER DIVISION

- Retain multiple uninfected backups of critical data and applications. These backups should be air-gapped and password protected.
- Develop an approved white list of applications and processes allowed to run in your environment.
- Use File Integrity Monitoring to detect changes of critical OS files and processes.
- Follow the principle of Least Privilege for Access Control. Each user should have the least privileges needed for their job.
- Have penetration testing conducted by experts to ensure your organization is maintaining an acceptable security posture.
- Monitor or block IP addresses from known malicious actors.
- Educate your workforce on current and emerging cybersecurity risks and vulnerabilities.
- Implement endpoint protection solutions such as antivirus and antimalware.
- Enact multifactor authentication wherever possible.
- Ensure network segmentation.
- Disable RDP and other remoting options except when necessary.
- Keep software updated. Install software patches so that attackers can't take advantage of known problems or vulnerabilities.
- Conduct regular internet searches for student, faculty, and staff information to monitor its possible exposure and spread on the internet.

Reporting Notice

The FBI encourages recipients of this document to report information concerning suspicious or criminal activity to their local FBI field office or the FBI's 24/7 Cyber Watch (CyWatch). Field office contacts can be identified at www.fbi.gov/contact-us/field. CyWatch can be contacted by phone at (855) 292-3937 or by e-mail at CyWatch@fbi.gov. When available, each report submitted should include the date, time, location, type of activity, number of people, and type of equipment used for the activity, the name of the submitting company or organization, and a designated point of contact. Press inquiries should be directed to the FBI's National Press Office at npo@fbi.gov or (202) 324-3691.

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