



July 17, 2020

Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
445 12th Street, SW  
Washington, DC 20554

Re: 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

Dear Secretary Dortch:

Enclosed is an *ex parte* submission concerning cost allocation issues regarding cabling and data distribution equipment. SECA members as listed below discussed our concerns with the following members of the Wireline Competition Bureau during a conference call on July 15, 2020:

Ryan Palmer, Chief, Telecommunications Access Policy Division  
Gabriela L. Gross, Esq., Deputy Division Chief, Telecommunications Access Policy Division  
Stephanie Minnock, Esq. Assistant Division Chief, Telecommunications Access Policy Division  
Kate Dumouchel, Esq., Special Counsel, Telecommunications Access Policy Division  
Gavin Logan, Esq, Telecommunications Access Policy Division

The SECA Members who participated in the call are:

Andrew Epting, South Carolina State E-rate Coordinator  
Kim Friends, Tennessee State E-rate Coordinator  
Debra Kriete, South Dakota State E-rate Coordinator  
Vince LaForgia, Delaware State E-rate Coordinator  
Joe Polasek, Michigan State E-rate Coordinator  
Julie Tritt Schell, Pennsylvania State E-rate Coordinator

SECA members expressed concern with USAC's misinterpretation of E-rate rules related to what equipment can and cannot be connected to structured cabling and data distribution devices.

SECA believes that E-rate regulations, which presume that all activities on school and library property have an educational purpose, rightfully recognize that any equipment or devices attached to or using structured cabling and data distribution equipment, such as switches, inside school and library buildings are imbued with an educational purpose. The rules do not stipulate that only E-rate eligible equipment or only equipment that is used by end users to go online may be connected to these devices, yet this is the guidance that is being disseminated to applicants and the interpretation that is being applied to review applications and to conduct audits.

This issue was raised with the FCC staff because during the FY 2020 Form 471 reviews, applicants are being asked by USAC's PIA reviewers for an inventory of devices that are attached to cabling or data distribution equipment. PIA then examines the list and informs applicants of which devices are considered ineligible to be attached to internal connections and therefore require cost allocation. The cost allocation must deduct a portion of the internal connections costs that are attributed to the so-called impermissible devices.

SECA believes these procedures fail to heed to the FCC's educational purposes test which recognizes that *all* activities that occur on school or library property are presumed to have an educational purpose and facilitate broadband connectivity. Regardless of whether a connected device accesses the Internet by end users or serves some other supporting purpose for the school or library, the connected device has an educational purpose and facilitates broadband connectivity. Further SECA pointed out the disparity observed in the review of wireless and wired internal connections. Wireless internal connections are not being asked similar questions related to what devices are connected to the equipment and therefore are not subject to cost allocations. SECA believes this is the sensible and correct approach and technology neutrality requires that the same approach should be extended to wired equipment.

Even if PIA procedures were to be changed to no longer ask these questions or subject funding requests to cost allocations during the pre-funding or funding phases, applicants still need clarification from the FCC concerning the ambiguity that has arisen. Although the USAC website and FCC Orders have not spelled out these requirements, the requirements are currently being applied not only during pre-funding reviews but also during post-commitment reviews, including audits, that have resulted in recovery actions.<sup>1</sup>

We therefore respectfully urge the FCC to clarify in writing, preferably within the FY 2021 Eligible Services List, that all on-premise devices connected to structured cabling and wired/wireless data distribution equipment serve an educational purpose and therefore, there is no associated cost allocation requirement for any connected devices.

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<sup>1</sup> 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>.

Upholding one recovery of improperly disbursed funds in a summary Streamlined Resolution Public Notice appears to be a limited decision and should not qualify as a new policy with precedential impact. Yet, 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.

While these two post-commitment actions relate to security cameras, this issue is being construed far more broadly by USAC evidenced by its expansive PIA questions implemented for FY 2020 review of applications.

If the FCC concludes that cost allocations must be observed, the list of impermissible equipment needs to be publicized, guidance must be provided concerning how to calculate cost allocations, and the new requirements must only be applied prospectively. The list of impermissible equipment also will need to be updated routinely to reflect new technological advances.

In either event, SECA believes that prompt written guidance is imperative to resolve the ambiguity that has arisen. Thank you in advance for your attention to this important issue.

Respectfully submitted,



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Enclosure (*Ex Parte* Submission)

cc: Ryan Palmer, Esq. (w/encl.)  
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Stephanie Minnock, Esq. (w/encl.)  
Kate Dumouchel, Esq. (w/encl.)  
Gavin Logan, Esq. (w/encl.)



## Communications Cabling & Data Distribution Equipment Eligibility July 17, 2020

### I. Introduction.

USAC recently has started asking applicants to remove a portion of their funding requests if eligible Category 2 equipment is connected to ineligible equipment. Many eligible Category 2 items connect to ineligible equipment, such as an eligible cable connecting an end user laptop. Such cost-allocation is not and has never been required by the Commission's E-rate rules. SECA requests that the Commission direct USAC to stop requiring this cost allocation and make clear to applicants that there is no E-rate eligibility test for structured cabling or data distribution equipment.<sup>1</sup>

Although the USAC website and FCC Orders have not spelled out these requirements, they are currently being applied not only during pre-funding reviews but also during post-commitment reviews, including audits, that result in recovery actions.<sup>2</sup>

### II. All Network-Connected Equipment and Devices Have an Educational Purpose.

- A. Congress directed the Commission to establish a program to provide discounts for Internet access, telecommunications services, and internal connections so that elementary and secondary schools and libraries have access to those services. Sections 254(b)(6), (c)(3) and (h)(2).
- B. By virtue of deciding to allocate and expend funds, including local matching funds, to purchase and install these devices in their buildings, schools and libraries have determined that the equipment is necessary to deliver educational resources to pupils, staff, and patrons.
- C. Each Internet-enabled device that schools and libraries have purchased and installed in their buildings, schools and libraries has an educational purpose as defined by E-rate regulations.
- D. The Commission's rules require that E-rate funding be used to purchase services that "will be primarily used for educational purposes." 47 C.F.R. 54.503(c)(2)(ii)(A).

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<sup>1</sup> In April 2020, SECA initially raised these concerns with USAC. USAC advised that changes to PIA procedures could not be made at this time but would be considered in future years. SECA then contacted the FCC and spoke with staff about the cabling issue. We then requested the opportunity to follow up with more detailed information. In preparing this analysis, we determined that the same issues govern data distribution equipment (switches and routers) as well as cabling. This analysis, therefore, addresses both groups of internal connections.

<sup>2</sup> 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>. 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.

- E. “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.
- F. Simply because most of these connected devices 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.
- G. It appears that PIA has divided ineligible equipment attached to cabling and data distribution components into two categories – equipment that is used to access the Internet and all other equipment. Their premise is that equipment used to access the Internet is an eligible use of the internal connections whereas “all other equipment” is an ineligible use of internal connections and requires cost allocation.
- H. This delineation, however, if allowed to stand, fails to consider that the “all other equipment” category includes all kinds of devices that support the operation and administration of education and the buildings in which the education is occurring all of which is essential to ensure the availability of broadband access and education.
  - 1. The two-tiered classification also nullifies the “educational purpose” definition governing activities that occur on school and library property. 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.
  - 2. 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.
  - 3. 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.
  - 4. The above examples are just two illustrations of a myriad of Internet-enabled devices that rely on the school’s or library’s communications network (and may be connected to the cabling, switch or router) in order to ensure that students and patrons are able to access the Internet and broadband connectivity throughout the buildings.
- I. 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.

### **III. The List of Devices Connected to or Using Cabling, Switches and Routers is Voluminous and Ever Expanding.**

- A. As information technology has continued to advance, the reliability and scalability of applicants’ networks have become critical to facilitating the education of students and availability of resources to library patrons. These activities necessarily include measures to preserve the safety and well-being of all building occupants and to operate the buildings. At the same time, communications networks have become so robust and reliable that device manufacturers have enhanced their products with networking capabilities to leverage this increased capability. These connected devices are commonly referred to as the Internet of Things (IoT). The IoT currently consists of millions of devices, all of which connect to the Internet and allow for data to be shared with

manufacturers, network administrators, device end-users, and amongst themselves. The list of these devices is ever evolving.

- B. A multitude of devices, in addition to the eligible Category Two components specifically listed on the ESL, are connected to schools' networks either via cabling connected to wall outlets, cabling connected to wireless access points, and switches/routers. This following is list was compiled by conducting a brief survey of a handful of school and library technology directors:

3D Printers	Lighting
Access Points	Medical Devices (e.g., monitors for neurologically impaired students)
Assistive Technology Devices	Metal Detectors
ATM Machines	Mini-Hubs
Cable TV ( <i>The Z-Band product</i> )	Network Attached Storage Devices
Classroom Cameras ( <i>stream lessons</i> )	Non-IP Telephones
Classroom screen sharing devices (e.g., <a href="http://www.vivi.io">www.vivi.io</a> )	Paging/Intercom Systems
Clocks	Postage Meters/Machines
CNC Router Machine	Printers
Computers (desktop/laptop)	Projectors
Conference Room a/v Systems	Public Address System
Content Filters	Security Cameras
Copy Machines	Servers
Credit Card Machines	Smartboards
Dante <i>A digital audio protocol to connect microphones to audio mixing boards in a large venue</i>	Stadium Scoreboard
Desktop/Laptops	Thermostats
Digital Signage	Time (punch) Clock
Door Locks	Uninterrupted Power Supplies
E-Cigarette Smoke Sensors	Video Intercom ( <i>entryway</i> )
Environment Sensors for Server Rooms ( <i>monitors temperature, humidity, etc.</i> )	Video Production Equipment (e.g., <i>TriCaster, Mevo</i> )
Fire Panels	Video Streaming over Ethernet (e.g., <a href="http://justaddpower.com/">http://justaddpower.com/</a> )
Food Service Systems/Scanners	Video Switching Equipment for Conference Room/LGI (e.g., <i>AMX, Crestron</i> )
Generators	Vinyl Printer/Cutter
Gun Shot Detection	Visitor Management Systems
HVAC Systems	VoIP Phones
Interactive TVs	Weather Station Clocks
IoT devices	
Laser Cutters	

- C. The technology directors were quick to mention that this is the list as of June 2020 and will expand within a year. In other words, there should be no static list of what equipment may or may not be attached to the network as such a list will be obsolete as soon as it is published.
- D. This list of devices is intended to contextualize the evolution of technology in school and library buildings. Many devices use the Internet (and therefore are supported by communications cabling and data distribution equipment) to provide an environment that enables end users to use the broadband connectivity to access the Internet – even though the device may not itself be used by an end user for Internet connectivity.

- E. SECA believes that the establishment of lists of permissible and impermissible devices that attach to network components will be impossible for USAC and applicants to administer in the preparation and review of Form 471 applications and to implement cost allocations.

**IV. USAC’s Cost Allocation “Requirements” Favor Wireless Devices, Even Though the Commission’s Rules Should be Technology Neutral. There Should Be No Regulatory Difference Between Wired and Wireless Connections.**

- A. As SECA sought to compile a list of all devices connected to schools’ networks either via cabling connected to wall outlets, cabling connected to wireless access points, and switches/routers, the comments we received from technology directors were illuminating. They see no distinction between whether a device or piece of equipment is connected to a wired connection or a wireless connection, and do not believe E-rate rules and policies should ever favor one over the other.
- B. The logic being applied to require cabling and data distribution cost allocation is inconsistent with the way in which the eligibility of wireless equipment is being treated, where there is no required cost allocation for ineligible devices that use the wireless equipment. Technology neutrality requires that wired and wireless connectivity be subject to the same E-rate eligibility framework.
  - 1. Wired connections serve the same function as wireless connections -- to access the communications network.
  - 2. Wireless connections use Wi-Fi as the entry point whereas wired communications connect directly into a network jack. Some devices that may or may not be eligible for E-rate will connect to the network via a wireless access point.
- C. Wireless access points are fully eligible, as they should be, and there has been no requirement to cost allocate a portion of the costs of access points used to support “ineligible devices.” The same approach should be used for wired communications cabling and data distribution equipment, and cost allocations should not be required.

**V. Elimination of USAC’s Cabling and Data Distribution Cost Allocations Will Streamline E-rate, Simplify Preparation of Applications, and Reduce PIA and Audit Processing Time.**

- A. Cost allocations require calculations to be performed by applicants and to be reviewed by USAC to verify that they are based on tangible criteria that reaches a reasonable result. <https://www.usac.org/e-rate/applicant-process/before-you-begin/eligible-services-overview/cost-allocations-for-services/>
- B. Typically cost allocations are complex, and applicants are unsure how to perform the calculations. It may seem simple to conclude that a security camera connected to data jack will require that specific port and its attendant cabling to be deemed ineligible. However, school and library networks are fluid, changing constantly to meet their needs. It is common for a school or library to decide they need to swap a “wired” security camera for an access point and deploy a new “wireless” camera which streams data through the access point. How can this be cost allocated or anticipated when a Form 471 is submitted?
- C. Because schools are transforming into hybrid models, many classrooms are installing cameras that will live-stream teachers conducting in-person classes to students participating from home. Cameras inside a classroom must have the same eligibility as a camera in a hallway. E-rate should not begin to ask “what specifically will the cameras be used for” as they determine eligibility.

- D. If the FCC determines the eligible cable and data jacks or switch ports are ineligible because they connect to an ineligible item, are applicants going to be further burdened to be required to cost allocate the ineligible device's data packets? These "packets" traverse the eligible switch port, which connects to the cable in question, and then travel between equipment closets over eligible fiber cabling. These packets could then potentially travel over the applicant's eligible WAN and Internet connections. Such granular inspection of relative bandwidth utilization is impracticable for the overwhelming majority of applicants and adds a needlessly complex administration requirement to the program.

**VI. Due to the Permanent Budget Caps Governing Category Two Purchases, the Elimination of Cost Allocation Requirements for Cabling and Data Distribution Equipment Will Not Adversely Affect the E-rate Fund.**

- A. Applicants must conduct competitive procurements to select the most cost-effective solution for all their E rate procurements.
- B. Further safeguarding Category 2 resources, the amount of funding is capped for each applicant based on their calculated budgets using the FCC's prescribed formula.
- C. Applicants are permitted to choose the equipment from the eligible services list that best meets their needs and to purchase equipment/service up to their Category 2 budget caps.
- D. Elimination of the cost allocation requirement will not require the E-rate funding ceiling to be modified in any way.

**VII. Alternatively, the FCC Could Clarify (If Necessary) That Cost Allocation is Not Required Under E-rate's "Primarily Educational Purposes" Requirement.**

- A. If the FCC does not agree that the "educational purposes" definition of activities within school and library buildings is sufficient to determine that all cabling, network switches and routers are eligible, the FCC may rely on the language of 47 C.F.R. §§54.503 (c)(2)(ii)(A) and 54.504(a)(i)(5) that states that applicants seeking bids on the Form 470 applications and funding requested on Form 471 applications are required to certify that the service will be used *primarily* for educational purposes.
- B. The complexities and arbitrariness of the required cost allocations do not justify the time and effort required of applicants and the program administrator. The equipment attached to cabling, switches and routers is subject to frequent modification. Thus, there is no set configuration that is representative of the network such that the cost allocation calculation would necessarily be based on tangible criteria that produce a reasonable result. Experience has shown that the cost allocations result in *de minimis* cost reductions that have little, if any bearing on the approved funding. Yet the amount of time and effort is disproportionate to the achieved results.
- C. Should the FCC determine that cost allocation will continue to be required, we request "bright line" eligibility guidance as to what equipment may be attached to cabling and wired and wireless data distribution equipment without requiring cost allocation and what equipment when attached to cabling and wired and wireless data distribution equipment requires cost allocation. Further, we respectfully request that the FCC clarify that the guidance would be prospective and any applications that did not meet the new guidance would be held harmless.