

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

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

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EducationSuperHighway respectfully submits these comments in response to the Notice of Proposed Rulemaking in the above referenced proceeding.<sup>1</sup>

**INTRODUCTION AND SUMMARY**

EducationSuperHighway enthusiastically agrees with the Commission’s statement that the E-Rate Category 2 Rules implemented via the 2014 Modernization Orders have resulted in “more equitable and predictable” Category 2 funding, and fully supports the Commission’s intent to make these rules permanent. As the Commission further states in the Notice of Proposed Rulemaking, however, there are several aspects of the Category 2 program rules that should be streamlined, improved, or changed in order to better serve applicants, lower the administrative burden on both applicants and USAC, and safeguard the long-term viability of the E-rate program.

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<sup>1</sup> FCC 19-58, Notice of Proposed Rulemaking, Adopted 6/28/2019, Released 7/9/2019

## **I. The Category 2 program has been successful in achieving greater equity of funding**

The Commission states in its Notice of Proposed Rulemaking: “Our experience over the past few years suggests that these budgets have resulted in a broader distribution of funding that is more equitable and more predictable for schools and libraries.”<sup>2</sup> Data on the utilization of C2 funding supports this finding: in the four years preceding E-rate modernization, from funding years 2011 through 2014, only 14% of public school districts were able to access E-rate Priority 2 funding. Over the course of the last five years, from funding years 2015 through 2019, 89% of public school districts have accessed their E-rate Category 2 budgets.<sup>3</sup> The Category 2 budget approach has unquestionably resulted in a broader and more equitable distribution of funding to schools, and as a result, greater access to Wi-Fi in the classroom and the environments where learning takes place.

## **II. Aspects of the Category 2 program should be improved to better serve applicants and lower the administrative burden of the program**

### **A. MOVE BUDGETING TO BILLED ENTITY NUMBER LEVEL**

As referenced in sections 22 through 27 of the NPRM, there is broad support among E-rate stakeholders to move the Category 2 budgets from an Entity, or site, level up to the Billed Entity Number, or organization, level (i.e. from school site to district, from library branch to library system, etc). According to Funds For Learning’s 2019 E-rate Trends Report, 93% of E-rate applicants who responded to the survey stated that they wanted budgets moved to the Billed Entity Number/district/organization level.<sup>4</sup> Doing so would allow more local control over the deployment of technology resources and would eliminate situations where Category 2 money that could be extremely useful at one site goes unspent simply because it is tied to another site within an applicant organization that is not in need of upgrades. Under the current rules, larger applicants find themselves having to manage hundreds of separate budgets for each of their

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<sup>2</sup> *ibid*

<sup>3</sup> EducationSuperHighway analysis of USAC Open Data

<sup>4</sup> Funds For Learning, “2019 Erate Trends Report,” page 23.  
<https://www.fundsforlearning.com/2019ErateTrends>

school sites. In Funding Year 2019, 9,762 school districts applied for and received Category 2 funding for 51,193 schools. If the funding amounts were at the district level, districts would have to manage 5 times less the number of school level budgets. Eliminating these ‘mini-budgets’ and giving the applicants one budget to work with would greatly reduce the administrative burden on applicants.

The original rationale for the site-specific budget system was that the more students a location had, the more technology infrastructure it would need; but this has proven not to be the most efficient or equitable way of determining how to meet the unique technology needs of each school. For example, students in higher grade levels tend to utilize technology more frequently and for more bandwidth-intensive purposes than students at lower grade levels, and it is more common to see 1:1 device initiatives, advanced placement classes conducted via videoconference, etc., at high schools than at elementary schools. Therefore, it is entirely likely that a high school with a relatively small student population will require as much, or more, technology infrastructure and WiFi coverage to support its curricular program than an elementary school with a larger student count. Under the current rules, however, this elementary school would always have more funding available under Category 2. Many other factors such as the age of a school or the building materials used in its construction can have a significant impact on the cost of installing or updating Category 2 equipment and services. Thus a district may find that a smaller, older school needs far more money to upgrade its internal network than a relatively new school with more students. As Chairman Pai has previously pointed out about E-Rate: “The FCC has no business micromanaging the technology priorities of our local schools and libraries” ... “because every school and every library has its own unique needs, its own budget constraints, its own infrastructure with its own lifecycle, we should have the humility to recognize that local schools and libraries might be in a better position than officials in Washington, D.C., to set their own priorities.”<sup>5</sup> Simply put, giving the control over how Category 2 funds are allocated between entities back to local decision-makers addresses these issues directly, while also greatly reducing the administrative burden for both applicants and USAC.

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<sup>5</sup> Chairman Pai letter to Senator Tester, May 10, 2018

## **B. MERGE OR ELIMINATE SUBCATEGORIES**

Prior to the 2014 Modernization Orders, Category 2 funding was mostly administered under the “Two in Five” rule, whereby applicants could only apply for Category 2 funding (then known as Priority 2 funding) two out of every five years. However, because maintenance of equipment is an ongoing expense, a subcategory for Basic Maintenance of Internal Connections (BMIC) was created that was exempted from the “Two in Five” rule, as was Managed Internal Broadband Services (MIBS) when they were made eligible as Priority 2/Category 2 services. The rationale behind these subcategories disappeared when the “Two in Five” rule was eliminated by the Modernization orders. The continued existence of the subcategories has resulted in confusion about the dividing line between BMIC and MIBS, and some applications have been denied when the proper subcategory was not included on their FCC Form 470. A return to an all-encompassing “Category 2” would eliminate these problems at one stroke while simplifying the program for both applicants and USAC.

## **C. ELIMINATE DENIALS FOR OVER BUDGET APPLICATIONS**

The FCC should direct USAC to no longer deny a Category 2 application simply because the applicant included requests that exceed their remaining Category 2 budget. In FY2018, 165 Category 2 FRNs were denied for this reason. In such instances, USAC should be directed to work with the applicant to adjust the application so that it is at or under the remaining budget. If the applicant is for whatever reason unavailable but the application is in all other ways compliant with Program rules, USAC should simply approve the application up to the budgeted amount and allow the applicant to make the necessary adjustments during the invoicing process. This administrative change would have the added benefit of allowing USAC and the FCC to capture data on the full scope of internal network equipment and services needed by schools and libraries. Such data would allow for a more evidence-based discussion on questions about the efficacy of C2 funding levels and other aspects of the program.

## **D. MAKE NETWORK SECURITY ELIGIBLE FOR CATEGORY 2 FUNDING**

Applicants for E-rate funding are required to be compliant with the Children’s Internet Protection Act, yet the components and services necessary for applicants to be compliant with this law have never been fully eligible for E-rate support. Network security is an ever more critical component of educational technology infrastructure; schools who lack robust, modern network defense systems and filtering endanger the safety and security of their students, staff, and data. Since January 2016, over 500 data security incidents (including data theft, ransomware, DDoS, and phishing attacks) have been reported at schools nationwide.<sup>6</sup> Making a wider range of security-oriented services, equipment, and functionality eligible for Category 2 funding would greatly enhance applicants’ abilities to stay ahead of those who seek to infiltrate, steal, or hold for ransom their networks or data.

An EducationSuperHighway staff member who is a former school district Director of Technology estimates that, in his former role, he routinely spent roughly 25% of his total annual technology budget on network security related software, hardware, and services, almost all of which was ineligible for E-rate discount. This opinion is widely shared in the applicant community: 96% of respondents to Funds For Learning’s 2019 E-rate Trends Report concurred.<sup>7</sup> Including these new items on the Eligible Services List will not have a substantive impact on the overall USAC budget, as applicants will still be required to stay within their per-student budget numbers when applying for funds. Even if making these items eligible increases the number of applicants accessing their Category 2 funding, the current amount of annual funding available for the Schools and Libraries Program is more than sufficient to absorb an increase of funding requested.

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<sup>6</sup> K-12 Cybersecurity Resource Center Incident Map, <https://k12cybersecure.com/map/> - site data accessed on August 12, 2019

<sup>7</sup> Funds For Learning, “2019 Erate Trends Report,” page 21.  
<https://www.fundsforlearning.com/2019ErateTrends>

## **More Network Security Products/Services Should be Eligible Under Category 2**

- Firewalls: Currently firewall eligibility is qualified in the Draft 2019 Eligible Services List as “Firewall services and firewall components separate from basic firewall protection provided as a standard component of a vendor’s Internet access service.” Firewalls and firewall services should be eligible regardless of whether they come as part of a vendor’s basic product.
- Filtering: Content filtering features and services should be eligible.
- Deep packet inspection (DPI) capabilities, including Intrusion Detection System (IDS) and/or Intrusion Prevention System (IPS): These industry-standard security solutions have been the norm now for years. Many vendors may also use the term Unified Threat Management (UTM) or Next Generation Firewalls (NGFW), which refers to a single piece of equipment that serves multiple functions, e.g. firewall, content filtering, anti-virus, IDS, IPS, etc. These features and functions should be eligible.
- Network Management System (NMS) is defined as software that monitors, maintains, and optimizes networks. An NMS is necessary to ensure both performance and reliability of the network. NMS software or equipment that provides NMS functionality, including servers necessary for the provisioning of an NMS, should be eligible for funding.

## **E. INCREASING THE PER-STUDENT BUDGET**

Funds for Learning’s 2019 E-rate Trends Report highlights that 78% of respondents advocated for increasing the per student budget from its current level of \$150 plus inflationary adjustments to at least \$250 per student.<sup>8</sup> Based on our work with hundreds of districts over the past 4 years, EducationSuperHighway agrees that the current budget is not sufficient for many applicants to fully upgrade their Internal Connections in order to meet long-term FCC bandwidth goals and their own technology needs. This is especially true for applicants who need to upgrade not only the devices on their network, but to install new cabling and related infrastructure to serve and connect those devices. We analyzed school district Category 2 applications from 2015-2019, and found that 77% of schools that spent their entire Category 2 budgets did so while

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<sup>8</sup> Ibid. page 22

applying for cabling upgrades. This indicates that cabling upgrades put a particular strain on Category 2 budgets for school districts. Labor represents a significant amount of the cost to complete a cable upgrade, particularly in cases where walls and ceilings must be penetrated to complete the project. However, unlike some other elements of the internal network, cables typically do not need to be replaced or upgraded more than once every 7 to 10 years. Given these realities, the Commission should consider options to accommodate the higher costs of cabling upgrades outside of the regular \$150 per student per five years budget. For example, school districts could be allowed to expand their budgets by a certain amount once every 10 years specifically to help fund cabling upgrades.

### **CONCLUSION**

EducationSuperHighway applauds the intent of this NPRM to ensure the continued availability of Category 2 funding for future applicants. By making the rules permanent, simplifying the budgeting system, rationalizing the categorization of services, and making other small adjustments to the program, the Commission can preserve the long term fiscal health of the Program, bring the improvement process started by the 2014 Modernization Orders much closer to completion, and extend digital opportunity to more students in more places.

Respectfully submitted,

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