

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C.**

In the Matter of )  
 )  
Modernizing the E-rate Program ) WC Docket No. 13-184  
for Schools and Libraries ) CC Docket No. 02-6  
Universal Service Administrator by )  
 )  
Wireline Competition Bureau Public Notice )  
Seeking Comment on Category 2 Budgets )  
 )

**E-RATE MANAGEMENT PROFESSIONALS ASSOCIATION COMMENTS  
ON THE WIRELINE COMPETITION BUREAU’S PUBLIC NOTICE SEEKING COMMENTS  
ON CATEGORY TWO BUDGETS (DA 17-921)**

The E-Rate Management Professionals Association, or E-mpa®, is an advocate for the critical role served by E-Rate management professionals and consultants. The organization strives to strengthen and support the E-Rate program by acting as a self-certifying body of E-Rate management professionals and consultants. E-mpa®’s mission is to promote excellence and ethics in E-rate professional management and consulting through certification, education, and professional resources.

This organization is pleased to be able to submit comments regarding the sufficiency of budgets for category two services under the E-rate program.

E-mpa® believes that the implementation of a Category 2 budget, introduced with the E-Rate Modernization Order, has succeeded in allowing funding to flow to applicants that have not received Category or Priority Two funding in the past, due to the budget threshold. Simply put, for many years, the funds in the program were exhausted before the 70% discount applicants could be funded. After the implementation of the “Per Pupil” budget, applicants at ALL discount levels have received funding for Category 2 requests for funding years 2015, 2016 and 2017.

Generally, the overall effect has been positive, however the implementation method has had some unforeseen consequences. The application process has gotten significantly more complex. The backend processes necessary to keep track of the additional complexity are, in themselves

complicated. Simple data entry for the Form 471 is exponentially more time-consuming. On average, the time to data-enter a Category 2 application has quadrupled.

Additional complications with the advent of category two budgets include applicants having far less flexibility to make local decisions, applicants of all sizes and situations are finding that the allowable category two budget falls considerably short of their needs, and finally, the complexity of the entire application process, the hassle to make post-commitment changes and overall tracking intricacies adds additional steps to the process which increases processing time and resources by both USAC and the applicant and increases the chance for mistakes, and potential funding denials.

## **Implementation of By-District Budget**

E-MPA<sup>®</sup> is aware that one of the goals of tracking equipment by location is to more accurately gauge the efficiency of the program by providing more detailed metrics in terms of technology penetration. While this is a laudable goal, it directly contradicts the goal of simplifying the program. In fact, this can be distilled down to the axiom, “More detail, more complicated.” As long as the FCC, mandates that applicants keep track of installed equipment on a per building basis, attempts to simplify the program will fail.

Another deleterious aspect to a per-site budget is that it removes the decision-making power from local authorities. We believe Applicants are best trusted to make informed decisions on placement of equipment to maximize the educational value for their students or patrons. E-MPA<sup>®</sup> believes that there is no single factor that complicates the process more than the requirement to budget and track Category 2 equipment on a per building basis. Simply put, this one element dwarfs all others in terms of added complexity, added time, and reduced flexibility.

E-MPA therefore recommends that the FCC discontinue the “per entity” budget in favor of a “per district” budget, carefully reconsider the per-student amount for Category two budgets, and allow an applicant to pay their non-discount share of category two projects in an installment plan, up to four years, just as they can for special constructions costs.

We see the benefits as follows:

- Applicants only need to report the total number of items purchased, not apportioned by location. This will greatly simplify the Form 471, reducing the time required by an applicant to complete the form, and reduce potential errors made during the filing process.
- The backend processes will be streamlined. The applicant’s budget may be tracked as a single amount, rather than a separate sum per building. One number, decremented yearly equates to simplification.

- E-MPA<sup>®</sup> projects that a simplified application and simplified backend processes will significantly reduce the time to process applications. Faster processing will allow funds to be committed and disbursed in a more timely manner.
- By allocating an applicant's budget as a per-pupil per district aggregate total, applicants will have greater flexibility in the placement of equipment, and far less paperwork required to track the equipment. They can freely move equipment between eligible locations without needing to file an appeal or being required to leave the equipment in place for three years when it could be beneficial at another eligible site. We agree with the program requirement that an applicant keep a piece of equipment in operation for five years, however removing the by-location requirement will allow the freedom to move that piece of equipment to a different eligible location, when that best serves their needs.
- Allocating an applicant's budget by district or library system, will allow the freedom to allocate their budget dollars as they see fit. If, for example, a district determines that its Technology Academy requires a greater per-pupil expenditure than an Early Childhood Center, the district can put resources where they will do the most good. A library system will be able to spend more per square foot on its Community Access branch than on a bookmobile.
- In the past, many applicants had schools at different discount levels, (some at 90%, some at 80%, for example) under the previous discount calculation method, and their high-discount schools received much more E-Rate funding than their lower discount schools. As a result, their higher-discount schools may be more "current" than their lower-discount counterparts. A per-district budget will allow larger schools districts to help those lower-discount schools "catch up" by reapportioning some of the funding that under the current "per entity" budget cannot be so reallocated. In short, this change will provide greater flexibility for the individual school district to adjust to their individual needs. We feel the decision making is best held at the local level rather than at the Federal level.
- Shared resources will be much simpler to track. Under the current system, if an applicant wishes to purchase a single, shared router for the district, they need to apportion the cost between the entities using the router. For example, if the router is shared between five schools, each of the five schools needs to contribute some of their budget toward the router. It can be evenly shared, 20% per entity, or divided in a different way, as the applicant sees fit. It is complicated, and prone to error. School districts, especially large, urban school districts, change constantly. New schools open, older schools close, schools merge, and split, and are reconstituted in place. By the current rules of the program, a new school cannot use a shared router if it has not contributed to its cost. The budget method being proposed here will correct that.

E-MPA<sup>®</sup> understands that this proposed change will reduce the amount of data collected by the program, which, while conveying the benefits detailed above, will also obscure the distribution of technology within the constituent buildings within a district. E-MPA<sup>®</sup> believes this level of detail is wholly unnecessary. If a school district requests 800 data drops, is it at all useful to

know that School A received 450 of those data drops, while School B received the remaining 350 data drops? Or if a school district requests 50 network switches, is it useful to know that School C received 10 of those switches, School D received 25 of those switches, and School E received the remaining 15 switches?

## **Increase the Category Two Budget Per Student Amount**

E-mpa<sup>®</sup> strongly urges the FCC to raise the per student category two budget amount. These comments include fifteen examples of applicants, of varying sizes and urbanity, whereas the local area network projects suffered or were not completed due to the insufficiency of the category two budget. The additional budgetary strain of now having to pay in-full for voice services, for all but 90% applicants, contributes to the financial strain. E-mpa<sup>®</sup> is not advocating for the FCC to reinstate voice services as fully eligible for E-rate discounts, we are merely pointing out considerations on E-rate applicants' budgets.

E-rate Modernization and the FCC bandwidth standards have brought forth high speed broadband connections to applicants nationwide, a feat for which it should be lauded. A fast broadband connection to a building, however does not in itself translate to a robust and technology rich learning environment. The building must be capable of delivering the bandwidth to the end user.

The stories of 15 applicants, a cross-section from across the country, are provided to support the wide-ranging need for additional E-rate support for category 2 equipment and services. Thousands more examples of the need for additional category two funding can be provided upon request.

Pressly Elementary, member of Iredell-Statesville School District in North Carolina, provides education for students with special needs. They have 41 students full time students and it is the smallest representative school in our sample set. The most cost-effective bid for their switching and wireless LAN equipment totaled \$15,293.00, which was more than double their available category 2 budget. In order for Pressly Elementary to afford this minimal project, its per-student budget would have to be \$373.01 per student.

Turlock Unified School District in California is the largest district in our sample set with 13,950 students. The District requires new data cabling and fiber optics to be installed throughout the campus. All new Category 6 cable must be installed. The Cat 6 cabling will be added to the existing copper infrastructure, providing data connectivity for the upcoming Network Electronics project which will provide a 1:1 wireless environment. The legacy 62.5 fiber optics will need to be removed and replaced with new single-mode fiber optic cabling. This cable will serve as the backbone infrastructure for an upcoming upgrade from 1GB to 10GB network optics. This project includes all patch cords, wireless access points and wireless controller connecting all devices to the existing core/edge switches and 4500X and 2960 switch configuration and installation.

When Turlock USD evaluated bids for the total project, the E-rate amount per student was \$220.76. Luckily, Turlock could reuse most of the District's current trenching, conduit and raceway systems. Had they not, this project would have skyrocketed to over \$350.00 per student.

Hoke County High School in North Carolina desperately needs to replace cabling, aging network switches and upgrade wireless access points but could not afford to purchase the additional equipment required in order to implement a 1 to 1 initiative. Hoke County's project reflected the lowest per-student amount on our sample set of applicants at \$174.40.

The highest per-student amount, \$1,692.21 per student, is reflected by Taft Union High School District's category 2 project. Taft UHSD requires new data cabling to be installed throughout the campus. All new Category 6 cable must be installed. New Horizontal Connection (HC) cabinets will be built using a wall mount data cabinet that will be provided. Taft requires an upgrade to the existing network infrastructure. Each bidder was to be responsible for the removal and replacement of the existing edge switches and replacement with nH4:H10ew Juniper 3300 10gb ready switches. Also included in the project, Wireless Access Points will be provided throughout the campus providing a 1:1 deployment. Bidders were to include additional wireless bridges to connect the remote field house to the main campus as well as exterior locations to provide coverage for student common areas.

The scopes of these projects are consistent with applicants' needs across the country and begin to provide the FCC with insight to the applicant community's actual needs, in lieu of skewed data as reported on Forms 471. Applicants have long been instructed by USAC to only request category two funding up to their allowable category two budget in order to ease application review. Thus, USAC and the FCC have never had data reflective of applicants' actual needs. Based upon the sample set of applicants, the average per-student amount necessary to facilitate real and necessary network infrastructure upgrades is \$429.31 per student. E-mpa agrees that the realistic per-student amount necessary to allow applicants to fully utilize their highspeed broadband connections across a robust local area network is no less than \$400 per student for the period of five years. We implore with the FCC to consider tangible needs, reflective of what E-mpa<sup>®</sup> has provided, when writing the future of the E-rate program.

## **Applicants Pay Non-Discount Portion on Installment**

There is a sub-set of applicants who have not utilized their available category two budgets. The reasons are as varied as the applicants.

The FCC has the ability to encourage applicants to fully utilize their category two budgets by allowing them to pay their non-discount portion on installments, as afforded currently for special construction fiber projects. Allowing installment payments up to four years provides flexibility for districts which need the funding but are unable to fully budget for the non-discount portion in one budget cycle.

Applicants are experiencing budget cuts from virtually every angle, including E-rate's phase down of voice support. To counter diminishing funding, we implore the FCC to take steps to implement creative payment options.

## Summary

E-MPA<sup>®</sup> believes the E-rate program has an opportunity to be significantly simplified and streamlined while meeting the applicant community at their need.

- Simplify the application process for applicants, the review process for USAC and the post-commitment change process for both by moving to a by-district category two budget instead of a by-entity budget.
- Provide schools and libraries local control to determine where to place eligible equipment within eligible entities at their school district or library system
- Increase the per student amount from \$150.00 to a more realistic \$400.00 for a five-year period.
- Allow applicants up to four years to pay their non-discount portion of category two projects.

It will be possible to reach Chairman Pai's stated goal of a simplified application once C2 budgets are allocated per-district rather than per-site. The actual needs of the applicants can be met through the increase of the per student category two budget amount and allowing the flexibility of installment plan payments of the non-discount portion. E-MPA<sup>®</sup> believes that these changes can be implemented for the FY 2019 Funding Year.

In conclusion, E-mpa<sup>®</sup> respectfully requests the FCC to consider these recommendations and to incorporate them into the future of the E-rate program.

E-RATE MANAGEMENT PROFESSIONALS ASSOCIATION



/s/ Melinda A. Van Patten  
Melinda A. Van Patten, President

Attachment 1: E-mpa<sup>®</sup> Sample Set of Category Two Budget Deficiencies

Attachment 1: E-mpa Comments

State	BEN	Erate Year	School District	Total Bid	Student Count	Actual Cost Per Student	Project Scope of Work
							Switching and Wifi additions were scrapped due to budget
NC	127068	2017	Presley Elementary Special Needs School	\$15,293.52	41	\$373.01	
AS	17010594	2017	American Samoa (Pavaiai ECE)	\$29,052.00	55	\$528.22	STRUCTURED CABLING New data and fiber optic cabling switches and wireless access points. Because we knew we were going to be significantly over our \$150 per student budget, we only provided cabling and wireless network equipment to 1 computer lab.
NC	127068	2017	Iredell-Statesville Career & Technical School	\$25,625.99	90	\$284.73	Due to cost of system, only a minimal wireless system was able to be put in. Badly needed core switching equipment was scrapped because they were already over their Erate budget.
CA	144081	2016	Salinas City ESD Year 18 - Single Site	\$115,640.40	149	\$776.11	STRUCTURED CABLING The Salinas City Elementary School District requires new cabling to be added to the existing infrastructure at Boronda Elementary School. Bidders will be required to install new cat 6 cable to various locations** through-out the campus as well as remove and replace all existing fiber optics with new OM3 10gb ready fiber optics. NETWORK ELECTRONICS Boronda Elementary - Remove and replace all existing switches, access points, and ups. Provide a caching server.
SD	226016	2016	Lower Brule School District - Rural Tribal School District (3 sites)	\$88,858.00	300	\$296.19	STRUCTURED CABLING Meraki Wireless solution (switches, WAP's, UPS's & MIBS). Had no budget for cabling.
NC	127068	2017	Iredell-Statesville Scotts Elementary School	\$78,931.37	403	\$195.86	Due to cost of system, the project had to be scrapped. The school is representative of at least 9 other schools that required similar budget reductions..
WA	17102746	2017	(New) Riverbend Elementary School	\$123,074.60	404	\$304.64	Cabling, switching, WAP's, and UPS's for new elementary school construction.
AS	199130	2017	American Samoa (Coleman Elementary School)	\$111,571.00	555	\$201.03	STRUCTURED CABLING New copper and fiber optic cabling, switches and wireless access points. Because we knew we were going to be significantly over our \$150 per student budget, we only provided cabling and wireless network equipment to 5 computer labs that more than 500 students will have to share.
NC	11118	2017	Leake and Watts Services, Inc (6 Sites)	\$397,128.00	771	\$515.08	WIRELESS COMPONENTS Data switches, WAP's, and UPS's. Had no budget for cabling.
CA	143946	2016	Fruitvale USD Yr 19 - Single Site	\$301,050.71	855	\$352.11	STRUCTURED CABLING The Fruitvale ESD (Discovery ES) requires new data cabling to be installed throughout the campus. All new Category 6 cable must be installed per the locations shown on provided drawings. New Horizontal Connection (HC) cabinets will be built using a wall mount data cabinet that will be provided and installed by the contractor. The existing Main Cross Connection (MC) will have the existing cabinets demoted and replaced in the existing location. Fiber optic wills be removed and replaced throughout the campus. Existing cables will be removed as noted. Additive Alternate #1 Provide a cost to substitute from the specified fiber optics to a composite fiber optic system. NETWORK ELECTRONICS While new network electronics was separately needed, since we already expended our total Erate budget, we could not install the needed equipment.
CA	143904	2015	Taft UHSD Yr 18 - District Wide	\$1,771,743.02	1,047	\$1,692.21	STRUCTURED CABLE The Taft Union High School District requires new data cabling to be installed throughout the campus. All new Category 6 cable must be installed per the locations shown on provided drawings. New Horizontal Connection (HC) cabinets as shown will be built using a wall mount data cabinet that will be provided and installed by the contractor. NETWORK ELECTRONICS The Taft Union High School District requires an upgrade to the existing network infrastructure. Each bidder will be responsible for the removal and replacement of the existing edge switches and replacement with nH4.H1Dew Juniper 3300 10gb ready switches. Wireless Access Points will be provided through-out the campus providing a 1:1 deployment. Bidders will include additional wireless bridges that will connect the remote field house to the main campus as well as exterior locations to provide coverage for student common areas.
CA	144071	2017	Wilsona School District	\$385,307.75	1,302	\$295.94	STRUCTURED CABLING The Wilsona school District requires new fiber optic cabling to be installed throughout the campuses. All installed fiber is to be concealed. All existing fiber to be demolished out. The contractor will supply necessary pathways, conduit, raceway, enclosures, and connectors. New fiber optic cabling shall be installed per the locations and details shown on provided drawings. The District needed to also install new network electronics, but since there was not any Erate monies or other available funds, the District had to stop the project after doing the cable project. The Wilsona School District requires new data cabling to be installed throughout the campuses. All new Category 6 cable must be installed per the locations shown on provided drawings. Needed several cabling, switching and WAP upgrades but could not afford additional equipment needed to do 1:1 initiative because of additional costs not covered by Erate.
NC	126997	2015	Hoke Cunty High School	\$344,152.99	1,970	\$174.70	WIRELESS COMPONENTS Data switches, WAP's, and UPS's. Had no budget for cabling.
GA	128080	2017	Macon County School District	\$488,523.37	2,133	\$229.03	
CA	16027882	2016	Turlock USD Yr 18 & 19 - District Wide	\$3,079,603.42	13,950	\$220.76	STRUCTURED CABLING The Turlock Unified School District requires new data cabling and fiber optics to be installed throughout the campus. All new Category 6 cable must be installed per the locations shown on provided drawings. The Cat 6 cabling requested will be added to the existing copper infrastructure, providing data connectivity for the upcoming Network Electronics project that will provide a 1:1 wireless environment. The legacy 62.5 fiber optics will be removed and replaced with new single-mode fiber optic cabling. This cable will serve as the backbone infrastructure for an upcoming upgrade from 1GB to 10GB network optics. NETWORK ELECTRONICS The Contractor will be responsible to provide patch cords, wireless access points and wireless controller connecting all devices to the existing core/edge switches. All programming, configuration, testing, labeling and documentation will be provided in the contractor's bid price. 4500X and 2960 switch configuration and installation.
<b>AVERAGE:</b>				<b>\$490,370.41</b>	<b>1601.67</b>	<b>\$429.31</b>	