



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

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

INITIAL COMMENTS OF THE SOUTH DAKOTA DEPARTMENT OF EDUCATION AND  
THE SOUTH DAKOTA BUREAU OF INFORMATION AND TELECOMMUNICATIONS  
REGARDING  
NOTICE OF PROPOSED RULEMAKING

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**II. Introduction and Overview**

The South Dakota Department of Education (“Department” or “SD DOE”) and Bureau of Information and Telecommunications (“BIT”)(hereinafter referred to as “South Dakota” or “State”) submits the following comments in response to the FCC’s Notice of Proposed Rulemaking to modernize the E-rate Program for Schools and Libraries.

Together with BIT, the Department currently offers high speed broadband Internet access service and connectivity to all 151 of the public school districts. The schools are interconnected via the Digital Dakota Network (“DDN” or “Network”). The DDN is a statewide interactive video communications system using compressed digital technology to provide a "meeting pipeline" across the state of South Dakota and the global community. The DDN also provides high speed Internet access service. The DDN connects the Executive, Legislative and Judicial branches of state government, the Board of Regents, private universities, the four public technical schools, municipal governments and the K-12 community.

The Network is designed to increase access to education and government and enhance the business, education and health care climate in South Dakota. Studios are located in government facilities, public and private universities,

technical education institutions, and high schools. Any business, school, organization, agency or individual may use the DDN system for instruction, training, meetings and presentation purposes.

Through its state budget appropriation, the Department historically has paid for the non-discount share of the K12 network costs and E-rate pays for the remaining costs. In 1998 when the network was first established, most districts were connected with T-1 lines. Larger schools and districts received multiple T-1 lines with the largest having OC-3 (155 Mbps) access. Over time as bandwidth needs grew, the minimum connectivity level per district increased and within the past year, most districts are now connected with a 50 mbps circuit. Even with the increased circuit size, however, some districts' need for bandwidth now exceeds 50 mbps. These districts are permitted to purchase additional bandwidth at the state master contract prices, provided that the district pays for the non-discount share and applies for E-rate on the additional bandwidth cost. This "split billing" arrangement enables districts to receive the benefit of lower pricing through aggregated demand, even though the school must bear the non-discount cost of the additional bandwidth themselves.

From 2005 to 2008, the SD DOE provided incentive funds through the Classroom Connections project to promote the use of one-to-one laptops in high schools. By the end of the project, 10,700 students in 55 high schools had laptops and more than 1,000 teachers had been trained to integrate the laptops into their classrooms. As of April 2011, 80 high schools and more than 13,000 students were learning with laptops<sup>1</sup> and those numbers have continued to grow.

Technology is vitally important to ensuring that high quality education is available across the State. South Dakota is the fifth most sparsely populated state. The State has over 77,000 square miles and its population is approximately 833,000 according to 2012 census data. There were less than 150,000 students (146,514) enrolled as of the fall of 2012 (which is the most recent data available). There are approximately 11 people per square mile in the State, and only North Dakota, Montana, Wyoming and Alaska have fewer per capita inhabitants.<sup>2</sup> Educators have embraced and incorporated the network in daily learning through distance education, professional training and state reporting, just to name a few applications.

Nearly two thirds, or 102 of the public school districts have fewer than 500 enrolled students, and 30 of those districts have fewer than 200 students. Fifty nine of the districts, or 39%, consist of one building that houses the elementary, middle and high school programs. There are only 23 districts with more than 1000 students. The two largest

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<sup>1</sup> [http://www.setda.org/c/document\\_library/get\\_file?folderId=300&name=DLFE-1234.pdf](http://www.setda.org/c/document_library/get_file?folderId=300&name=DLFE-1234.pdf) last visited 9.8.2013.

<sup>2</sup> In comparison, New Jersey, the most densely populated state, has 1,205 residents per square mile. On average, there are 88 residents per square mile across the United States.

districts, Rapid City and Sioux Falls, account for more than 37,000 students or one-quarter of the public student population. Of the six county wide districts in the state, the per capita number of students varies from 0.31 (Stanley County) to 1.5 (Todd County). Stanley County has 444 students through the 1444 square mile county while Todd County has 2049 students throughout the 1389 square mile county. These statistics vividly illustrate the sparsely populated and disaggregated characteristics of the elementary and secondary student population.

E-rate funds have enabled the State Network to expand connectivity and services to students across the State. The State historically has used E-rate to facilitate ubiquitous broadband access. Typically the State network application accounts for about one half of the total annual approved funding for all of the State's applicants, ranging from \$2 Million to \$2.5 Million annually. The annual average funding approved for all of the State's applicants including the State network is approximately \$5.75 Million. South Dakota annually receives only about 0.0025% (one-quarter of 1%) of the annual funding allocation primarily because very few applicants are able to access any Priority 2 funding. Few of the public school buildings have a 90% discount and therefore have been unable to receive Priority 2 funding in most years. The current 2-in-5 rule also has hampered efforts to procure Priority 2 funding at the state network level compared to at the district level.

The South Dakota Bureau of Information and Telecommunications works hand in hand with the SD DOE and the state's schools to ensure the schools' technology needs are met. The Bureau provides the following comprehensive services to schools, since 1999:

- Internet Access
- Network Management
  - ✓ Network Monitoring
  - ✓ Network Alarming
  - ✓ Network Reporting
- Security Operations
  - ✓ Firewall Equipment
  - ✓ Content Filtering Service
  - ✓ Anti-Virus Software
  - ✓ Firewall Support
- Student Information System
  - ✓ Grades, Assignments & Attendance
  - ✓ Parent Portal
- Domain Naming Services
- IP Address Management
- Learning Management System
- Negotiations, Standardization & Contracts
- Data Center Facilities
- Wide Area Network Connectivity
- Wide Area Network Equipment
- Two-way Audio & Video Distance Learning
  - ✓ Class Scheduling
  - ✓ Seamless Integration to Higher Education Classes
  - ✓ Video Conferencing Equipment
- Full Feature E-mail for Students, Teachers and Administrators
- Statewide K12 Global Address List
- Active Directory Services
- Collaboration & Scheduling Services
- Web Hosting
- Technology Training
- Help Desk Staff
- Media Streaming
- Virtual High School
- Technology Support Consultants
- Knowledge Base Documentation

The State of South Dakota has significant experience in providing technology services directly to the K12 community. The Digital Dakota Network (DDN) provides a unique depth and breadth of technology services directly to the K12 community without any fee for service charges to districts. All of the services listed above are provided at no cost to the local school district and are fully funded from the Department of Education with State budgeted funds and E-rate funding.

**III. *Bandwidth Goals Are Appropriate Provided They Are Targets To Be Considered And Decided Upon At The Local Level And There Is No Retribution If The Goals Are Not Achieved. (¶¶17-40)***

The General Accounting Office (GAO) has criticized the FCC for failing to have performance measures for the E-rate program. The proposed performance goals of 100 mbps for every 1000 students and 1 gbps for every 1000 students within five years (for 99% of the nation's students) are based on the recommendation of the State Education Technology Directors Association (SETDA) which was in turn endorsed by President Obama in the ConnectEd initiative.

The South Dakota Digital Dakota Network is somewhat unique in that the State pays for the non-discounted portion of the costs of services and school districts are not required to make a direct payment for the state-provided connectivity. The State, therefore, has a major planning and coordination role in facilitating the deployment of broadband services to the public school districts. The Bureau of Information and Telecommunications, the state agency responsible for coordinating the state telecommunications educational network, works closely with the Department of Education to ensure that schools have sufficient bandwidth. The schools have the option of paying for additional bandwidth beyond the bandwidth that the state pays for if they feel they need more. This "split billing" allows the schools some autonomy for managing beyond the state-provided allocation.

In South Dakota, 106 of the 152 school districts currently or will soon meet the 100/1000 threshold. All 106 of those districts have less than 600 students. Most of the 46 remaining districts that do not meet this threshold at the present time have larger populations: 14 districts have over 2000 students; and, 27 districts have between 600 and 1999 students. Only five districts with less than 600 students do not meet this threshold at the present time.

Looking at the total number of enrolled students in public schools, however, the metrics are less impressive. Less than one-quarter of the enrolled students in public schools -- 23% -- will be subject to the 100 mbps/1000 student metric presently or in the near future based on current plans. Yet, geographically these students are located in districts that cover nearly three-quarters of the state map -- 72%.

Conversely, more than three-quarters of the students -- 77% -- do not have 100 mbps/ 1000 students, and are located in more populated areas -- only 28% of the state map.

Much of the current bandwidth capacity is available via a BTOP grant that was awarded to the State in partnership with SDN Communications (a South Dakota telecommunications company owned by 17 independent telephone companies). The grant enabled SDN Communications to install fiber optic services in rural areas which is why most of the rural areas meet the 100/1000 threshold.

In order to implement the delivery of high speed services to the schools over this newly available infrastructure, the State Legislature allocated funds to increase broadband connectivity to each node connected to the state network up to 50 mbps. Because so many of the state's districts are one building schools that house elementary, middle and high school students under one roof, and are very small districts, the 100/1000 standard is more easily met for these districts.

The history of minimum connectivity speeds to school districts has grown as the needs have grown. At the inception of the DDN in 1998, a T1 (1.544 Mbps) was the bare minimum. Over time that grew to a 10 Mbps standard and this past year the minimum speed per circuit was established as 50Mbps where available. Again, if schools need more bandwidth, they are able to purchase it at the master contract, competitive prices that the State negotiated, but the schools are responsible for paying their non-discount share and must seek E-rate to cover the cost of the additional bandwidth.

The state network minimum transmission speed is growing as the needs and technology requirements within schools grow, and, as state budgeted resources are available to pay for the non-discounted share. South Dakota has chosen a 50 mbps connection to each school building that is connected to the state network based on needs and resources. This is what the State can afford to pay and it allows the State's public schools to live within their financial means.

We understand that the nationwide goal of 100 mbps for 1000 students and 1 gbps for 1000 students in five years anticipates the continued exponential growth in the use of bandwidth to stimulate digital learning and to enhance learning opportunities for students across the country. While the State Educational Technology Directors Association has expertise in this area, the underlying report in which it made these bandwidth goal recommendations is devoid of any underlying empirical evidence. South Dakota most certainly wants to continue to participate in the expansion of digital learning, but is concerned about the cost of setting and achieving somewhat arbitrary goals. If local schools believe that they have sufficient bandwidth for digital learning at lower bandwidth thresholds and these thresholds are more affordable, these schools' decisions should be respected and should not be criticized in any way. South Dakota has always driven its connectivity speeds for schools on a needs basis.

If the numbers are being established as "goals" – then that is acceptable. If they are being established as "standards" and E-rate reimbursements are dependent on meeting such goals, then that is simply not feasible. Requiring a school district such as Sioux Falls (23,000 students) to have 23 Gbps of connectivity is going to drive costs for the program through the roof without any true justification that 23 Gbps of bandwidth is in fact needed.

Moreover, the FCC should consult with NTIA and utilize the information acquired and reported as part of each state's broadband initiative to ensure that any additional data collection in the pursuit of E-rate performance goals and measurements leverages existing data and does not duplicate efforts.

Last, the NPRM asks several questions about monitoring of bandwidth capacity that raises concerns that there may be some consequence to applicants that apply for E-rate funding on bandwidth speeds that exceed the amount of bandwidth the applicants are actually using. If the goals are established and schools receive bandwidth capacity in accordance with those goals, there can be no retrospective look back or examination of how much of that capacity is being used. There can be no E-rate financial consequence to schools if they strive to meet the performance goals but it turns out that the schools do not need all of that capacity.

#### **IV. *High-Capacity Broadband Connections Should Receive The Highest Priority. (¶¶65-114)***

The goal of the E-rate program has been to enable all schools and libraries to connect to high speed Internet. In 1996 when the Telecommunications Act was enacted, many schools were without any Internet

connectivity or relied on dial-up phone lines because broadband services were not yet available. The world looks very different today and great connectivity advances have been made. In South Dakota, students are fortunate to have access to broadband services throughout most areas of the State. A NTIA grant enabled a conglomerate of commercial telecommunications service providers, SDN Communications, to upgrade their infrastructure to enable 50 mbps broadband connections. Establishing broadband services as the highest priority for E-rate funding will encourage and incentivize applicants and service providers alike to facilitate access and use of these services.

**V. *While The Capacity Available From Fiber Facilities Is Require for 21<sup>st</sup> Century Learning, The FCC Should Not Designate Or Prescribe That E-rate Beneficiaries Must Use Any Particular Technology. (¶¶67-70, 84)***

In order to establish broadband services with speeds of 100 mbps up to 1 gbps next generation speeds, fiber technology, or a comparable technology that may not yet be conceived of or in the developmental phase, is required.<sup>3</sup> Copper based long haul services at high speeds do not exist in the market today. All schools should have fiber-based facilities available to them. There must not be any differentiation between the technology and services made available for E-rate support to rural and urban schools. South Dakota certainly does not want to be the 1% left behind in the Connect ED goals of connecting 99% of the nation's schools to 1 gbps service within five years.

The FCC should not pick any particular technology and mandate that it be used. This includes fiber versus another technology or wired versus wireless technology. The universal service programs are required to be technology neutral. Regulatory delay makes it impossible to keep up with the pace of emerging technology. Today's best and brightest technology may quickly be replaced with tomorrow's innovation.

**VI. *States Have Substantial Expertise That Can Provide Assistance In Identifying Underserved Areas And Broadband Options. (¶76)***

Some states are in a much better condition than the federal government to determine priorities within its own borders. South Dakota provides an effective and sustainable model for technology support and integration in

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<sup>3</sup> For example, microwave technology may become a faster alternative to fiber according to one Wall Street Journal article. See <http://online.wsj.com/article/SB10001424127887323622904578129463665320232.html> (last visited September 15, 2013).

schools. Our program has been operational since 1999. This concept should be pursued further, to include offering guidance on priority, build vs. lease options, and measurement metrics to determine success.

**VII. *Purchase Of Wans Should Not Be A Priority. (¶180).***

While anything is possible, the SD DOE is not aware of any situation in the State where it would be more cost-effective to build or purchase a WAN rather than lease a WAN. Most of the high speed wide area network connections are paid for by the State through its state master contracts with service providers. The State network provides connectivity to the building level. For the most part, this alleviates the need for districts to purchase or lease building to building connections because the buildings are all connected to the state network.

Purchasing a statewide network rather than leasing the circuits from service providers would be cost prohibitive. In addition to considering the installation and ongoing maintenance costs of the circuits, the initial and ongoing investment in equipment needed to light the fiber would need to be considered. Then there is the cost of technical support currently provided by commercial vendors that would need to be included.

While it may be superficially appealing to consider cost models that may or may not take all these variables into account, the funding of the purchase of private investment through E-rate support is short-sighted and fundamentally flawed. Commercial telecommunications vendors have a common carriage requirement and must offer service to other customers on a non-discriminatory basis. To the extent that E-rate currently pays for installation costs for school WANs, the facilities used to provide service to those schools must also be made available to provide service to nearby customers. No such requirement will govern school governmental entities that might own subsidized WAN facilities. Consequently, there would be no assurance that the E-rate funds ultimately will foster the availability of broadband in adjacent locations to the schools and libraries. Moreover, rural schools already have many other competing priorities besides becoming network operations experts. Most large applicants such as urban school districts already have competitive service alternatives and do not need to install their infrastructure in order to obtain broadband. Such a policy shift would simply drain more resources from the already oversubscribed program.

Instead, if a school is unable to obtain broadband service, there should be a mechanism established to compel the telecommunications common carrier to provide this service. Indeed, the Connect America Fund is intended to provide resources to build out broadband in unserved areas. This approach is preferable rather than duplicating resources and allowing for the purchase and installation of private networks.

Moreover, the broadband priority must ensure that the annual recurring costs of multi-year contracts are eligible for support and there is sufficient funding available to approve all of these funding requests. If the one-time costs of purchasing WAN infrastructure are included as part of the broadband priority, the very real risk arises that there would not be sufficient funds available to pay for all broadband priority funding requests. Adjusting priorities to create a category that will result in oversubscribed funding requests associated with multi-year contracts is going to be more destructive and not at all constructive in the long run.

***VIII. Support For Certain Services Should No Longer Be Included In E-Rate. (§§90-116).***

***A. Voice Phone Service Should Continue To Be Supported. (§95).***

Although the program goals should be revised to place the highest emphasis on broadband services, voice phone services should not be eliminated from support. The funding obtained from these services is used to help to defray other technology purchases. Voice phone services are ubiquitously procured by all schools and libraries across the country. Right now, at least through FY 2013, they have been assured of receiving E-rate funding for these costs as a Priority 1 service – although with the growth in demand, future years' Priority 1 requests may not all be funded if the program continues without any other changes.

The E-rate funding for voice phone service is in many instances the only service for which they apply for E-rate. This E-rate funding then offsets these costs and allows them to use other budgeted funds for equipment and other technology purchases. In FY 2013, SD DOE estimates that the state's applicants requested approximately \$2.6 million of total requested funding of \$8.667 million (30%). While these numbers are fairly modest, they represent a huge value to the schools and libraries and the loss support would be extremely detrimental. The loss of this funding would deal a substantial financial blow to applicants and they would have to find other sources of this vital funding. The loss of this annual funding – either as a flash-cut or phase-out – would reduce the available funds for other technology purchases. Even if the rules for Priority 2 funding are changed so that all applicants

could periodically access this funding, it would be extremely unlikely that the *annual* funding from voice services would be replaced by periodic Priority 2 funding.

Obviously voice phone service is an essential necessity in this day and age, particularly when emergencies occur. E-rate needs to focus not just on broadband but the most fundamental communications needs of our schools and libraries.

*B. Paging And Directory Assistance Service Should No Longer Be Supported. (¶194)*

On the other hand, the Department agrees that ***paging and directory assistance services*** are outdated and should be eliminated. These services are not used by South Dakota applicants and reflect antiquated technology. Paging has been replaced with cellular service and directory assistance is available online without charge.

*C. Email Service Should No Longer Be Supported. (¶197)*

As for ***email***, this service should be eliminated because it is available at low or no cost to most applicants and its funding to other applicants puts an unnecessary financial strain on limited program resources. The State provides this service for most districts free of charge from the State K-12 Data Center. Most other districts host their own email and do not need to outsource it.

*D. Webhosting Service Should No Longer Be Supported. (¶197)*

Similarly, ***webhosting*** should be eliminated as a supported service because many applicants internally host their websites and/or other low or no cost options are available to them. The State offers free webhosting service, which most districts opt to use, via the State K-12 Data Center (and for which the State does not claim E-rate on the associated contract costs with the underlying service provider). In South Dakota, there are 19 districts that outsource their webhosting and claim E-rate for these charges. The rest of the districts host their websites on the K12 data center free of charge.

Webhosting service fees have greatly expanded and proliferated since the FCC decided this service should be eligible for E-rate. This service has become a huge drain on the fund and the money could be better spent on other broadband priorities. While a web presence undoubtedly is vital to all schools and libraries, this is a modest cost that should be borne by applicants as part of their local technology resources. It does not seem fair to allow for large outsourced expenditures for webhosting contracts to be subsidized while many other applicants have figured out a low or no cost manner of maintaining a web presence.

*E. The Current “Educational Purposes” Interpretation Should Remain Intact. (§§99-100)*

Narrowing the “educational purpose” definition is ill advised. The NPRM mentions the possibility of excluding services that used for administrative purposes from support. These administrative functions, however, are equally important and are needed to support classroom learning and library patron services. Without administrative support, schools and libraries would be unable to operate and provide services to students and patrons. Making a distinction between services delivered to students and to library patrons invites an exercise in line drawing that will be impossible to define clearly and to enforce. Such a vague line and will result in subjective application by different PIA reviewers and/or applicants’ commission of inadvertent program rule violations.

Such a redefinition will necessarily require cost allocation of otherwise eligible services between educational and other, administrative purposes. Cost allocation requirements contribute to program confusion, complexity, bureaucracy and increased administrative costs. These costs will more than outweigh any potential savings to the fund by narrowing the definition.

*F. Basic Maintenance Of Internal Connections Should Be Eliminated From Eligibility. (§101)*

In past years, the FCC has tried implementing measures to curb the exorbitant costs that some applicants have been charged for maintenance services. This is an area where many vendors have targeted high discount applicants, and required applicants to have an “insurance” policy for maintenance service – where the applicant must pay regardless of whether they use the maintenance service. This is also an area where applicants that handle maintenance work internally through employee resources cannot recoup those costs from E-rate, but applicants that decide to outsource this work are able to claim E-rate on these costs. This is the kind of disparity

and incentive that should be removed from E-rate 2.0. Rather than incenting applicants to outsource their technology maintenance they should be encouraged to build this expertise internally. At the very least, by eliminating support for third party maintenance contracts, there will no longer be an E-rate incentive to outsource this function.

Warranties offered by manufacturers as part of the bundled price of equipment should be eligible for E-rate as part of the cost of eligible equipment since they are a cost effective way to ensure that malfunctioning equipment can be replaced cost effectively.

*G. Air Cards Should Not Be Eligible For Support. (¶102)*

Noting that air cards are costly and that wireless Internet can be provided more efficiently on campus via an E-rate supported local area network, the NPRM asks whether air cards and cellular data plans should be eligible for support. The Department agrees that air cards are a costly substitute for wireless Internet and should not be supported by E-rate. This is especially true because all off campus usage currently must be cost allocated pursuant to the rule that Internet services must be used at an eligible location. Once again, by deleting air cards from the Eligible Services List, a time consuming cost allocation administrative procedure will be rescinded and funds will be made available for other higher priority services and equipment.

Cellular data plans similarly are an inefficient means to obtain Internet access service and are duplicative of wired Internet connectivity in school and library buildings. Cellular data plans also are restricted to use on campus in eligible buildings and all other usage must be cost allocated. Because cellular service is often bundled with data/Internet plans, the elimination of cellular data/Internet service from eligibility will continue to require cost allocation. The only way to avoid cost allocation is to eliminate the eligibility of cellular service, but this would compromise safety of students and patrons as cell phone service is often used in emergency situations. Consequently, the SD DOE reluctantly recommends the elimination of cellular data service. Such a position will not create a new cost allocation requirement. Rather cost allocation of all cellular data/Internet charges will be required, rather than limiting the cost allocation to off campus usage.

**IX. Ensuring Equitable Access To Limited E-Rate Funds**

*A. District Discounts Should Be Computed Using A Simple Average Approach. (¶¶126-129).*

Changing the district discount methodology from a weighted to simple average will simplify the program significantly and establish a more equitable basis for allocating E-rate funds. Currently districts are required to calculate and report the discount for each separate building on their form 471 applications. This entails data entering the SLD entity number, NCES number, number of NSLP-eligible students and number of enrolled students for each building. Non-instructional facility buildings must also be separately reported. For large applicants such as state networks, the data entry process is extremely time consuming and onerous.

This process is required in order to calculate the weighted discount of each building (the E-rate discount multiplied by the number of enrolled students); then the weighted discount of all buildings are added together and divided by the total number of students enrolled in the district to arrive at the district's weighted discount. This weighted discount is then used to computing the funding for shared services funding requests.

PIA procedures require validation of the discount calculation of each building. States submit NSLP "valid" files containing the state-certified number of NSLP-eligible students and number of enrolled students of each building. If the building's resulting discount computed from the state valid file is lower than the discount reported by the applicant on their form 471 application, the applicant is required to submit supplemental documentation to substantiate the higher discount. These procedures are time consuming and complex for both the administrator and applicants alike.

If a school is shuttered any time after the filing of the form 471 application but before funding is approved - an event that occurs in numerous districts in any given school year -- PIA procedures also require the applicant to submit a cost allocation to remove costs associated with the building or prove through third party documentation (which is often impossible to obtain) that there is no reduction in costs. Because state network services often are delivered to the district level and do not decrease when a building is closed, there frequently is no cost reduction associated with the closing of a school. Nevertheless, these school closing PIA procedures take a lot of additional time and effort for the administrator and applicants to follow.

All of these deterrents would be eliminated by adopting a simple average discount methodology for school districts just like it is currently used for computing library discounts. The total number of NSLP eligible students in the district would be divided by the total number of enrolled students in the district. The NSLP percentage would then be correlated to the E-rate discount matrix and there would be one E-rate matrix discount assigned to the entire district. This discount should be used to apply for all funding, both Priority 1 and Priority 2. No longer would there be different discounts in different buildings throughout the district. The only discount that PIA would need to validate was the district-wide simple average discount. In the case of the South Dakota state network application, this would mean validating the discounts of 151 districts rather than having to validate the discounts of 578 individual buildings. This one measure would reduce the data entry and validation requirements for 427 entities (578 – 151) by nearly 75% for South Dakota alone. Similar or greater savings of time would be experienced for all large school district and consortium applications.

This approach also makes a great deal of sense from a financial perspective. School districts and not individual school buildings must budget and pay for technology service and equipment purchases from a centralized and not a school-specific budget. It makes sense, therefore, for all buildings in the district to benefit equally from E-rate funding across the district. This approach will also stem the tide of continuously requesting E-rate discounts for 90% buildings and then transferring equipment to lower discount buildings after three years, as is permitted today under the equipment transfer rules. This approach will also likely reduce the number of discounts with a pure 90% discount, which will result in having more entities to contribute a higher amount of local matching funds for the non-discounted amount. This is consistent with the Department's recommendation to lower the maximum discount rate.

*B. The Discount Matrix Should Be Modified And All Applicants Should Be Able To Receive E-Rate Funding Of Priority 2 Equipment On A Periodic Basis. (§117-125) (§1143-145).*

Most South Dakota applicants have been unable to obtain Priority 2 funds because their building discounts are not high enough and the fund routinely falls short of being able to fund any Priority 2 requests below 90%. In fact most applicants do not bother applying anymore and are extremely frustrated over the lack of fairness they perceive.

Although the FCC may have thought applicants' frustration was temporarily mitigated in FY 2010 when the FCC decided to fund all Priority 2 requests, applicants actually were even more disillusioned because the decision was made after the fact and applicants did not know in advance and therefore did not alter their behavior by submitting all of their Priority 2 requests. As to be expected, in FY 2012, the first year after which the FY 2010 Priority 2 funding decision was made, demand for Priority 2 jumped since applicants figured that if the FCC decided to fund all P2 in FY 2010, a similar decision could be made in future years and they did not want to lose out. Because of the huge increase in demand and the lack of additional carry-forward funds, only 90% P2 funding requests were approved in FY 2012, leaving all lower discount applicants extremely frustrated.

Something must be done to rectify the inherent unfairness of the current rules. A district with a NSLP percentage of 35% to 49% receives an E-rate discount of 60% whereas the same district with a NSLP percentage of 50% to 74% receives an 80% discount. Those districts are not substantially better off than a district with a 75% NSLP percentage yet the district with the 75% NSLP percentage receives a 90% discount and can usually obtain funding for internal connections. The two-in-five rule attempted to curb the 90% funding requests but it has not worked. Demand for 90% P2 requests has not diminished over time as had been hoped.

There are several actions that can be done to benefit South Dakota applicants, including:

A. Lower the maximum discount from 90% to 75%. While this means that the local match is greater, it also means that the applicant will have to think more carefully about these purchases (because they have more skin in the game) and it means that the funds will go further and allow more applicants to obtain Priority 2 funding. It also means that applicants currently receiving no Priority 2 funding (essentially a 0% discount) will now receive a maximum 75% discount on those procurements. A 75% discount is far more preferable and advantageous than being constantly shut out of this funding pool.

B. Eliminate the large step increases in the discount matrix by adding 20% to the entity's NSLP percentage if the NSLP percentage is lower than 55%. This approach is far more equitable in assigning discounts based on applicants' relative poverty levels.

C. Create a rotating application Priority 2 funding schedule for all applicants regardless of discount level as described in SECA's June 24, 2013 E-rate 2.0 White Paper. In the first year the applicants with the highest discounts (and highest NSLP % within the discount band) would be funded first, until all funds were depleted. In

the second year, the funding would start up where it left off the year before, and so on until all discount bands were funded. For example if in year 1 all funding requests for 75% were approved, then the next year funding requests at the 74% discount level would be funded until funds were depleted.

Although some options in the NPRM suggest elimination of the priority system, the Department strongly opposes any such movement and believes that it will exacerbate the inherent unfairness of the current rules, for several reasons. First, without adding additional funding to the program, applicants will face a Hobson's choice: either use E-rate funding to pay for ongoing Priority 1 services *or* use the money to pay for Priority 2 equipment purchases. Second, elimination of the priority system is at odds with the proposed goal of focusing E-rate resources on broadband services. Third, Priority 1 traditionally has paid for ongoing, recurring services and applicants have frequently entered into multi-year contracts to obtain more competitive pricing. If the priority system is eliminated, and there is insufficient money to fund all requests in the single priority system, applicants will no longer be assured that they will be able to receive funding for these multi-year agreements. Proration of all requests will result, which will cause more confusion and complexity. Applicants who budgeted their own resources based on an anticipated E-rate funding stream will have to reconsider and reallocated their own resources based on the reduced E-rate funds that are available. The requests submitted will need to be revised to reflect the lower funding. Such an approach will add to program and administrative bureaucracy.

While the program will benefit from reform, particularly with respect to Priority 2 funding rules, the program is not broken. The first principle that should guide the FCC's reform efforts is to do no harm. Changes should not be made that add to the complexity or inequity of the program under the guise of modernizing it.

*C. Funding On A Per Student Or Per-Building Budget Will Create New Inequities And Will Not Be Fundamentally Fair. (¶¶135-142)*

One of the possible reforms under consideration is whether a per-student cap or per-building cap should be established and if so how much money should be allocated per student and should the allocation for rural students and applicants be set higher than the baseline. The leading proponent of this approach is Funds for Learning, LLC, and mentioned by name in the NPRM. As a consulting firm that advises numerous Priority 2 vendors

in addition to some applicants, Funds for Learning has focused its modernization efforts on this particular reform proposal.

In its August 16, 2013 *ex parte* filing in CC Docket No. 02-6, Funds for Learning set forth recommended per student caps based on the NCES rural locale codes. The filing includes caps based on the FY 2013 E-rate fund (presumably based on the current \$2.38 Billion funding cap) and the amounts based on an increase in the funding cap to \$4.5 Billion. Since there is no way to predict whether the funding cap will be increased, the Department is focused on reviewing the per student caps based on FY 2013 funding levels.

The Department compared the FY 2013 Funds for Learning data to the amounts requested of South Dakota applicants during FY 2013 for its public school districts. First, each district's NCES locale code was identified and assigned. Second, the Funds for Learning per-student amount per locale code was multiplied by the number of enrolled students per district and by the district's FY 2013 E-rate discount to arrive at the amount that the district would receive under the Funds for Learning proposal. Next this amount was compared to the total amount of funding each district requested for FY 2013. Finally the difference for each district was computed.

The results of the analysis are illuminating and quite concerning in several respects:

- Fourteen (14) of the 138 districts that applied for E-rate in FY 2013 stand to lose money under Funds for Learning proposal. Of these fourteen districts, four of them applied *only for Priority 1 services*. One is classified as Rural: Remote; one is Town: Remote and two are Rural: Distant. Each of the four districts applied only for telecommunications and Internet access service – no webhosting or email service. Each applicant has an excellent track record with E-rate compliance and there is every reason to believe that all of the requested funding is reasonable and fully compliant. Indeed each of the applicants has already received approval of some or all of their FY 2013 funding requests.
- The other ten (10) district that stand to lose money each applied for Priority 1 and Priority 2 funding. The per-student allocation amount would not be sufficient to fund all of their requests. This makes sense because most Priority 2 requests are for one-time equipment purchases. Creating a per-student annual cap will not be sufficient to meet the applicants' periodic needs to make these purchases. Applicants need more Priority 2 funding than is provided based on a levelized per-student cap approach, but they do not need it every year. A per-student cap will under-allocate funds in the years that the applicants apply, and will over-allocate funds in the funds that they do not apply. This will be particularly problematic for South Dakota's districts that are made up of one building. Purchasing some but not of the equipment needed for a technology upgrade will do little to advance these schools' broadband access. In fact, they may be unable to use some of the equipment until the remaining equipment is purchased. Under E-rate rules, however, the applicants must use the equipment once it is purchased. This approach would result in inefficiencies rather than efficiencies; equipment would sit unused or uninstalled until the applicants could apply for the remaining equipment in future years. It makes more

sense to retain the current system of allowing applicants to apply for all Priority 2 equipment based on when they have the budgeted funds to do so.

- In total, these fourteen (14) districts represent 10% of the public school district applications in South Dakota. The funding deficit for these applicants totals \$717,000 under the Funds for Learning plan.
- The remaining 124 districts would receive more funding under the Funds for Learning plan, ranging from an additional \$1,500 up to an additional \$588,000 for one of the largest districts. Many of these districts did not apply for any Priority 2 funding in FY 2013. It is unknown, therefore, whether the additional funding allocation would be insufficient or adequate to meet their Priority 2 needs and whether they would need this additional funding each year. Clearly demand for Priority 2 funding has been suppressed by non-filing districts who do not want to invest the time or effort with very little chance of realizing any gain based on the current program rules. If, however, the rules are changed to allow for all applicants to gain periodic access to Priority 2 funding, then the demand is likely to increase substantially.
- The above analysis did not take into account any funding that the districts receive indirectly through the State consortium application for the state network services provided to all districts. When this funding was also included as part of the district's FY 2013 request, the number of districts that would receive less funding under the Funds for Learning proposal increases to 41 or 30% - nearly one-third of the state's districts.

Another major flaw in the Funds for Learning proposal is its failure to address how funding would be distributed between consortia applications in which applicants are included for some services and on the applicant's own form 471 that is submitted for other services. For example, the Department's form 471 application seeks funding for all high speed telecommunications circuits and Internet access service that make up the state network. The districts then apply for building to building connections (if the district has more than one building), local and long distance phone service, cellular service and any other eligible services used by the district.

In other portions of the NPRM, the FCC emphasizes the important role that consortia serve in aggregating demand and negotiating more competitive prices for services as well as offering filing efficiencies by submitting one combined form 471 application. The Funds for Learning proposal is at odds with this approach and does not clearly address how consortia application would receive funding under the per-student approach.

In summary the per-student cap approach may sound appealing but it does not resolve the inequities in the allocation of Priority 2 funds. Such a one-size-fits-all approach may over-allocate funds to some applicants and would under-allocate funds to others. Moreover, it assumes that applicants need the same amount of E-rate funding year in and year out, even though most Priority 2 purchases are one-time equipment purchases that are not undertaken annually. Additionally, it seems that the opportunity for fraud and/or price gouging would

increase when a fixed, known budgetary amount is available to applicants and vendors. This model would discourage rather than encourage vigorous competitive bidding. Last, the approach does not work with the consortia model that the FCC properly wants to encourage. For all of these reasons, a per-student allocation should not be adopted.

*D. Applicants Should Not Be Given An E-Rate Budget In Place Of Submitting Applications For Funding. (¶¶ 149-162)*

Although at first blush this approach may be appealing, there are many program controls that will be compromised with this approach. Currently pre-application review seeks to ensure that the services have been competitively bid and contracts have been entered into after a fair and open bidding process. These reviews help to protect against waste, fraud and abuse. The pre-application reviews also seek to confirm that funding is requested only for eligible services and equipment. While under current rules the risk exists that applicants may be audited after the fact and found to have violated program rules and required to refund money, the pre-application reviews are designed to try to ensure compliance up front before any funds are disbursed.

Unfortunately pre-application reviews have not prevented all improprieties and criminal prosecutions of criminal activity have been required. Without any such pre-application oversight, however, the Department is very concerned that waste, fraud and abuse will rise as well as inadvertent program infractions. After-the-fact reviews are insufficient to preserve the integrity of the program. Each time there is a criminal prosecution of wrongdoing, there is a “black mark” on E-rate. More concerning, the limited E-rate funds have been misused and were not available for meritorious applicants

Similarly, audits have uncovered inadvertent program infractions where applicants may not have realized that they were using funds in a manner not consistent with program rules even though they had absolutely no malevolent intent. Applicants who are forced to pay back money find such directives to have an egregious impact on their budgets and the responsible employees may face retribution for their innocent mistakes. Applicants far prefer to learn that they have made a mistake and will not get funded rather than have funding rescinded after the fact and after the funds have been expended.

Like the per-student approach, the budget approach does not lend itself to the blended situation where a district or library may file an application for phone service funding and the state network files a consortia application for data circuits and Internet access service. The funding would need to be divided and allocated between the individual district application and the consortium application. Also if the applicants' budgets are known up front by vendors, it may be very hard to exert cost containment and encourage lower prices by vendors—even if competitive bidding is still required.

By requiring forms certifications, applicants and service providers are verifying that they have complied with program rules. While this type of simplified approach is appealing it does not appear to be viable for assuring the long term integrity of the program.

**X. *South Dakota Applicants Need More E-rate Funding To Ensure They Have The Network Equipment Needed for 21<sup>st</sup> Century Learning. (¶173)***

Even without establishing the 100 Mbps/1000 students goal (or increasing it to 1 Gbps/1000 students over five years), the program is routinely oversubscribed year in and year out. More money is needed to ensure that South Dakota applicants have the network equipment in place to support 21st Century learning. FY 2013 is the first year that there would not have been enough funding for all Priority 1 requests without rolling over unused money from prior years. South Dakota suggests that one way of ensuring more funding is available for commitments is to reduce the amount of unused spending from prior years. Applicants can be required to notify the administrator earlier when they know they will have unused funds and the administrator can be required to issue funding decisions sooner (so applicants have more time to spend the funds during the program year). In addition, by reducing the scope of eligible services to concentrate on broadband goals, and by reducing the maximum Priority 2 discount, hopefully more funds will be made available for Priority 2 funding.

Whatever changes are made, they should be permanent and sustainable. If the FCC decides to increase the funding cap because more money is needed, the increase should not be a one-time fix. A one-time increase will not enable there to be sufficient funding over the long term. Equipment and services need to be refreshed in order to keep up with technology advances and software and other application advances. If a technology platform is outdated and cannot support new applications, 21<sup>st</sup> Century learning will certainly be impeded.

**XI. State Consortia Purchasing Can Be Encouraged By Providing Incentives To Applicants To Use State Contracts. (¶¶179-185)**

States such as South Dakota each have comprehensive public procurement laws that they must follow before they may enter into contracts for goods and services. Competitive bidding is a cornerstone of these laws. Contracts for technology services and equipment are bid at the state level and the pricing, terms and conditions are available for local governmental entities such as schools and libraries. Some of these contracts were procured in conjunction with the E-rate form 470 process. Other contracts were let without posting a form 470 because the time line for the procurement did not align with the E-rate application cycle. In all cases, nonetheless, the state procurement laws were followed.

These contracts offer the advantage of aggregating demand and obtaining the most competitive pricing available to schools and libraries located in a rural, sparsely populated state. It is highly unlikely that an individual district or library applicant will be able to obtain more competitive pricing than the State achieved based on government economies of scale. Indeed, more often than not, when South Dakota applicants post form 470s they receive no bid responses and must contact nearby vendor to request bids.

All of these state contracts should be exempt from the E-rate competitive bidding requirement because the state procurement process has already ensured that the contracts represent the most cost-effective choice. Schools and libraries should be permitted to forego posting a form 470 before submitting a funding request for services and/or equipment that is based on any competitively bid state contract. Simply because the State did not post a form 470 does not diminish the cost-effectiveness of the pricing. By allowing applicants to forego posting a form 470 if they choose to purchase from a competitively bid state contract, the FCC will offer a huge incentive and also greatly simplify the application process.

Schools should be encouraged to take advantage of contracts and pricing already established rather than duplicating efforts in establishing their own individual contracts. Aggregated purchasing power across public entities is far more efficient than on an individual contract basis. Providing an incentive for schools and libraries to take advantage of existing contracts is a great way to promote government efficiencies. A side effect is that fraud may be reduced by relieving local schools of the burden and subsequent opportunities that come with writing, distributing, evaluating and awarding locally-driven procurements. All of these steps are time consuming and

require a degree of expertise. Schools should be in the business of education, not necessarily technology procurement. This is a simple solution: there is no need to reinvent the wheel, and contracts for services and equipment can be made available that have been vetted already by technology experts within the boundaries of existing state laws and regulations.

***XII. Applicants Should Not Have To Publish Their Competitive Bidding Documentation And Contract Documentation Relating To E-Rate Services. (¶¶191-201)***

The requirement to publish all bidding information is onerous and will not accomplish any kind of price controls in South Dakota. It will be burdensome to publish this voluminous information. Service providers will object to the publication of this competitively sensitive information. Prices vary according to the amount of competition and geographic location of the customer. Prices in South Dakota will be very different from prices in New York and publishing this information will have no influence on that differential. Rather than streamlining the program, this requirement will add more regulatory burden to applicants, service providers and the E-rate administrator.

***XIII. There Must Not Be Any Maximum Length Of Contracts Prescribed For E-rate Services (¶243)***

Multi-year contracts create efficiencies and incentives for suppliers and for recipients. South Dakota has an extensive competitive bidding process, and we routinely enter into contracts with an initial term of between three to five years to establish “anchor tenant” opportunities for our service providers. We as state government are willing to make a long term funding commitment if the service provider is willing to invest in broadband infrastructure in an area. The anchor tenant role allows the service providers to then offer services to additional businesses and citizens along that path. Also, the multi-year terms enable the State to obtain more competitive pricing. The State has substantial contract and competitive procurement expertise and well as substantial technology expertise. The FCC should not second guess the state’s decision to enter into a contract of any particular length of time. This is not an area where the FCC has any special expertise or knowledge.

**XIV. *Filtering Of Non-School Owned Devices Cannot Be Mandated, Nor Can Filtering Of School Owned Devices When Used Off Campus With A Non-E-Rate Subsidized Internet Connection. (¶¶271-275)***

If a device is using the school or state K12 internal network then regardless of who owns the device it needs to be CIPA compliant. If the device is not owned by the school and is not using the state network (for example a student owned laptop with an air card or Smartphone with a data plan), then the school cannot force the device to be filtered. The only way to ensure that inappropriate material is not viewed is to prohibit the use of the device altogether while on campus. This should be a local decision that is addressed in the district's acceptable use and security policies. Off-campus filtering of school-owned devices is not addressed by CIPA and this too should be a local school board to decide whether to require the devices to be filtered off campus and if so whether the school will provide the filtering or require the student's family to provide the filtering as a condition of receiving the school device for off campus use.

**XV. *Schools And Libraries Should Be Allowed To Provide Wireless Hotspots To Surrounding Communities Using E-Rate Supported Services. (¶¶319-323)***

This should be permissible policy but not mandated. It should be a local school board decision but if adopted, network infrastructure must be secured from the internal networks of the schools so as to protect against network intrusion.

Providing the "hotspot" services during non-school hours would encourage the sharing of resources and create a more efficient use. To have the bandwidth / services basically sit idle from 3:00 pm to 7:00 am daily is not an efficient use. But because there are numerous technical considerations and actions required for implementation, this policy must be left to the discretion of local school boards.

**XVI. Conclusion**

The South Dakota Department of Education respectfully requests the Federal Communications Commission to adopt an Order consistent with the recommendations set forth above.

Respectfully submitted,

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