**BEFORE THE**
**FEDERAL COMMUNICATIONS COMMISSION**
**WASHINGTON, D.C. 20554**

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

# COMMENTS OF SUNESYS, LLC


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## COMMENTS OF SUNESYS, LLC

Sunesys, LLC ("Sunesys") submits these comments in response to the Federal Communications Commission's ("Commission") *Further Notice of Proposed Rulemaking* contained in the *E-Rate Modernization Order*.[1]

## INTRODUCTION

Sunesys is a dynamic, forward-thinking telecommunications-services and fiber-solutions provider that has been delivering efficient, cost-effective broadband solutions to a variety of institutions in many states around the country since 1998. Over that sixteen year period, Sunesys has laid thousands of miles of fiber, connecting tens of thousands of users to each other and to the world. As a certified E-rate service provider, much of this work has been done on behalf of schools and libraries, where Sunesys has been laying the foundation for the future of high-capacity broadband and helping to bring the forefront of digital connectivity to our nation's students and educators.

At the heart of Sunesys' E-rate supported broadband services are its managed wide area network ("WAN") solutions. Sunesys has substantial experience in designing, deploying and managing WANs for countless school districts, including some of the nation's largest and, therefore, most data-intensive, such as the Philadelphia School District and the Cobb County, Georgia School District. Further, Sunesys' managed WAN solution provides a technologically advanced and scalable network that can grow to accommodate any school's or library's future bandwidth needs, year after year without a corresponding growth in the cost to Sunesys' customers. Sunesys designs its WAN systems in a manner that allows its customers to upgrade to additional connectivity by simply switching out the modulating electronics that light the fiber.

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[1] *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, FCC 14-99, ¶ 88 (emphasis added) ("*E-Rate Modernization Order*").

Sunesys has been able to price 1 Gbps capacity fiber connections at competitive prices compared to what many schools or libraries are able to receive for more traditional broadband options, including copper and cable, and with very little change in price when increasing capacity from 100 Mbps to 1 Gbps capacity.

In addition, because of Sunesys' network design, schools or libraries can also go from 1 Gbps to 10 Gbps of capacity with relative ease and minimal costs. In fact, this exponential increase in capacity currently averages out to less than 3 times the cost compared to 1 Gbps of capacity for Sunesys customers – and the cost of these increases in capacity continue to decrease. Because Sunesys is able to provide cutting-edge broadband capacity at a price and in a manner that makes gigabit connectivity affordable today, some of the schools that Sunesys serves have already selected WANs with up to 10 Gbps to satisfy their data needs for years to come.

At the same time, as more and more schools and libraries incorporate digital learning programs, broadband is no longer a luxury – it is necessity for *all* students and library users in order to close the digital divide. As the Wireline Competition Bureau has previously recognized, however, "some schools and libraries do not have access to high-capacity broadband connections," and these entities "cannot afford to pay their share of the cost of deploying last-mile capacity broadband."[2] And as Commissioner Pai has noted, the current system "consistently underfunds small, rural schools and libraries."[3] Sunesys therefore submits the recommendations below on how the Commission can build on the reforms contained in the *E*-

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[2] Public Notice, Wireline Competition Bureau Seeks Focused Comment on E-rate Modernization, WC Docket No. 13-184, DA 14-308 ¶¶ 24-25 (rel. Mar. 6, 2014) ("*Public Notice*").

[3] Statement of Commissioner Ajit Pai on the Public Notice of the Wireline Competition Bureau Addressing E-rate Modernization at 1 (rel. Mar. 7, 2014), available at http://www.fcc.gov/document/commissioner-pai-statement-wcbs-pn-addressing-e-rate-modernization.

*Rate Modernization Order* to provide "increased funding to eligible schools and libraries, particularly those that have not been able to" access scalable, high-capacity connectivity in unserved or underserved areas.[4]

## DISCUSSION

### I. The Commission Should Continue To Support Reforms Focused On Cost Effectively Connecting Unserved Or Underserved Rural Schools And Libraries

In the Further Notice of Proposed Rulemaking, the Commission requested comments on additional changes that should be made to the E-rate program to "encourage the deployment of whole networks" and how to "otherwise improve the administration of the program."[5] As the Commission continues to undertake further reforms of the program, it cannot lose sight of this fundamental fact: there are still many rural schools and libraries that lack any true broadband connection. Further reforms to the program should therefore focus on how best to provide scalable, last-mile infrastructure to unserved or underserved schools and libraries, because without such connectivity to these schools and libraries, the connections within these institutions will not matter.

Indeed, numerous members of Congress,[6] Commissioner Pai and the Bureau itself have recognized that the existing E-rate regulations and funding priorities disproportionately short change small, rural schools and libraries and discourage funding for the large deployment costs necessary to provide them scalable infrastructure. But the bottom line is this: the digital divide will never be bridged until rural schools and libraries are provided last-mile, scalable infrastructure.

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[4] *E-Rate Modernization Order*, ¶ 269.

[5] *Id.* at ¶ 267.

[6] *See, e.g.*, Letters from Chairman Wheeler to the Honorable Kelly Ayotte, *et al.*, available at 2014 WL 4197856.

## II. The Reforms To The Rural Health Care Program Can Be Extended To The E-Rate Program

In 2009, Congress, through the American Recovery and Reinvestment Act, directed the Commission to develop a national broadband plan that would ensure that every American has "access to broadband capability," including for the purpose of advancing education and civic participation, among many others. Since that time, the Commission has taken a number of steps to implement and realize this goal, including the release of *The National Broadband Plan* as well as reforming and modernizing the various programs under its jurisdiction. The current NPRM is a critical part of that larger national broadband framework. However, as the Commission is well aware, there are other important components, including the Commission's efforts to reform other universal service support mechanisms such as the high cost and rural health care programs. Sunesys therefore recommends that the Commission take a holistic view of the programs under its jurisdiction and its reforms in this docket should be designed to complement and reinforce these other Commission programs.

The reforms adopted in the rural health care program[7] are instructive and many should be considered in this docket as well. There, through the valuable insight gained via pilot projects, the Commission was able to dramatically expand "health care provider (HCP) access to broadband, especially in rural areas" for the first time.[8] The Commission recognized that the pilot programs "proved the benefits of a consortium-focused program design, encouraging rural-urban collaboration that extended beyond mere connectivity, while significantly lowering

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[7] *See in the Matter of Rural Health Care Support Mechanism*, Report and Order, WC Docket No. 02-60, 27 FCC Rcd. 16678 (rel. Dec. 21, 2012) ("*Rural Health Care Support Order*").

[8] *Id.* ¶ 1.

administrative costs for both program participants and the Fund."[9] And the Commission was able to incorporate these lessons learned into the program so that it would continue to support ongoing funding for last-mile projects without jeopardizing the financial sustainability of the fund by instituting an annual program cap.[10]

Not only are many of these specific reforms to the rural health care program transferrable to the E-rate program, the Commission should be considering ways in which the practical results of its other reforms may be used to complement one another. As just one example, the funds used to connect a rural health care facility under the rural health care program may very well provide a foundation for increased broadband capacity to the schools and libraries in the same area. To the extent the E-rate program can be reformed to take advantage of such synergies, the limited funds available may be stretched even farther.

## III. Additional Reforms Should Be Adopted To Encourage Consortia And Facilitate The Special Construction Needed To Connect Unserved Or Underserved Schools And Libraries

The Commission also seeks comment on "how to break down barriers to schools and libraries joining consortia."[11] Sunesys's experience is that by aggregating demand through groups of individual institutions whose interests are aligned can have beneficial results, particularly with respect to reducing administrative costs. However, as the Commission continues to promote the use of consortia, it should direct USAC to modify its requirements to adjust for consortium purchasing.

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[9] *Id.* ¶ 2; *see also id.* ¶ 53 (noting that in contrast to its existing program rules, "the Commission required Pilot projects to apply as consortia and instituted procedures by which a project could submit a single application covering all HCPs participating in the network.").

[10] *Id.* ¶ 61.

[11] *E-Rate Modernization Order*, ¶ 269.

For instance, applicants can receive E-rate support for some installation and special construction charges, but the cost of large projects must be prorated over three years or more.[12] As an initial matter, this limit harms rural and other individual applicants that face the largest deployment costs, especially because there are no exceptions for rural deployments or other unique circumstances. Further, this limit also artificially prevents special construction to multiple applicants in a consortium because it does not provide for an increasing cap based on the number of consortium participants. There is no logical reason to cap special construction costs at $500,000 for two applicants that have decided to form a consortium and having the same cap for a single applicant. The Commission should therefore direct USAC to alter the cap imposed on the amount of eligible capital investments provided through a multi-year contract that can be expensed in one year so that it increases with the number of applicants that join a consortium.

Further, the Commission must ensure that any measures it adopts to encourage cost-effective purchasing decisions do not have the unintended consequences of reducing competition among potential providers of E-rate services.[13] For example, especially in rural areas, consortia must be implemented in a manner that does not actually reduce the number of potential providers that are able to submit a bid, as this would simply entrench the local monopolists that have thus far failed to deliver any true broadband connection. Thus, there should be no requirements that potential suppliers be required to submit bids to provide service through the entire area, as this

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[12] Currently, when applicants enter a multi-year contract and the upfront or non-recurring charge is $500,000 or more, USAC requires the total charge to be prorated evenly over a period of at least three years. *See* USAC, Schools and Libraries, Wide Area Networks, Capital Investment Costs, available at http://www.usac.org/sl/applicants/beforeyoubegin/eligible-services/wan.aspx (last accessed Sep. 8, 2014).

[13] *See, e.g.*, *E-Rate Modernization Order*, ¶ 294.

will eliminate smaller entities with specific fiber footprints from participating, and therefore actually increase costs or reduce fiber availability in some areas.

To further improve schools' and libraries' flexibility in obtaining cost effective means of receiving high-capacity broadband, the Commission should also make its treatment of lit and dark fiber consistent, especially with respect to special construction costs and electronics. Treating dark fiber on par with lit fiber will help to maximize the options available for schools and libraries seeking to deploy fiber to their premises. The Commission has on several prior occasions recognized the benefits of dark fiber, especially as a potentially cost-effective broadband option. For example, the *National Broadband Plan* concluded that "[a]llowing funding for ownership or leasing of dark fiber and associated communications equipment could allow recipients to use locally underutilized commercial or governmental capacity to provide lower-cost, high-value broadband instead of leased services currently eligible for E-rate discounts."[14] Similarly, in the *Rural Health Care Order*, the Commission concluded that "supporting dark fiber provides an additional competitive option to help [Health Care Providers] obtain broadband in the most cost-effective manner available in the marketplace."[15] And in the 2010 E-rate reform proceedings, the Commission recognized that excluding dark fiber from the options available to schools and libraries "would unduly limit the flexibility of schools and libraries to select the most cost-effective broadband solutions to meet their needs, which would be inconsistent with our schools and libraries policies."[16] Thus, the Commission found that "broadening the scope of potential suppliers of broadband increases competitive options, which

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[14] *Connecting America: The National Broadband Plan* at 237 (rel. Mar. 16, 2010) ("*National Broadband Plan*") available at http://www.broadband.gov/plan.

[15] *Rural Health Care Support Order* at ¶ 123.

[16] *In the Matter of Sch. & Libraries Universal Serv. Support Mechanism A Nat'l Broadband Plan for Our Future*, 25 FCC Rcd. 18762, 18768 ¶ 11 (2010) ("*2010 E-Rate Reform Order*").

in turn enhances choice and reduces cost."[17] The Commission therefore should take the next step in this proceeding to eliminate the disparity in treatment between dark and lit fiber, which will help to ensure that there are no regulatory inequities that artificially distort the choices available to schools and libraries.

Finally, multi-year contracts would also provide cost savings by creating administrative efficiencies and lowering fees, as such contracts allow schools and libraries to spread the costs of large capital expenditure projects over a longer period of time, encouraging investment in much-needed broadband solutions. Thus, Sunesys supports the Commission's proposal to limit E-rate support to eligible services under contracts of no more than five years generally, but exempting from this requirement contracts that require large capital investments.[18]

## CONCLUSION

For all of the foregoing reasons, Sunesys respectfully requests that the Commission adopt the further reforms of the E-rate program consistent with the recommendations set forth herein.

Respectfully submitted,

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17 *Id.*

18 *Id.* ¶ 271.