

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

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

**COMMENTS OF VERIZON AND VERIZON WIRELESS**

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Consistent with the President’s vision and the Commission’s objectives, Verizon supports modernizing the E-rate program to meet the forward-looking technology needs of schools and libraries.<sup>2</sup> The program already has been a success, playing a critical role in getting schools wired for the 21<sup>st</sup> Century and prepared to meet the challenges of educating in the Internet age. Since the program’s inception over 15 years ago, Verizon has provided E-rate supported services to tens of thousands of schools and libraries throughout the country, and has seen firsthand how E-rate has helped promote access to modern communications networks for even the most economically-challenged schools and libraries. Going forward in this proceeding, the Commission should adopt new broadband-focused goals for E-rate; collect and analyze better data; and make changes to the program that will distribute funding more efficiently within a reasonable budget and without increasing the costs of participation in the program.

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<sup>1</sup> In addition to Verizon Wireless, the Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc. (collectively, “Verizon”).

<sup>2</sup> See *Modernizing the E-rate Program for Schools and Libraries*, Notice of Proposed Rulemaking, 28 FCC Rcd 11304 (2013) (“*NPRM*”).

Earlier this year, President Obama announced the ConnectED initiative, a multifaceted plan to jumpstart digital learning technology in the nation's schools.<sup>3</sup> As part of the ConnectED initiative, the President called on the Commission to update the E-rate program to connect America's students through next-generation broadband to, and high-speed wireless within, their schools and libraries. The ConnectED initiative also includes proposals to advance the development of devices and applications, and to train teachers to ensure that they have the ability to use the new technologies to improve student outcomes.

Appropriately, the goal of ConnectED is to ensure that American students have access to next-generation broadband, and the E-rate program can play an important role in reaching that goal. The Commission should establish bandwidth goals for schools and target dates for achieving those goals. With bandwidth goals in place, the Commission will be able to assess objectively whether schools are obtaining adequate capacity and identify the E-rate policy changes that are needed. The bandwidth goals established by the Commission should be reasonable, taking into account the available E-rate budget, educational goals, and network engineering principles. And, for the bandwidth goals to be meaningful, the Commission should begin by collecting baseline bandwidth data from schools and putting in place a mechanism for collecting school bandwidth data on an ongoing basis.

The Commission should distribute funding more efficiently within the existing E-rate fund. By collecting better data about schools' connectivity, the Commission will be able to ensure that E-rate funds go to the right place. In addition, the Commission should distribute funds more efficiently by modifying the E-rate program's discount rules, which have not been

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<sup>3</sup> See The White House, Office of the Press Secretary, *ConnectED: President Obama's Plan for Connecting All Schools to the Digital Age*, [http://www.whitehouse.gov/sites/default/files/docs/connected\\_fact\\_sheet.pdf](http://www.whitehouse.gov/sites/default/files/docs/connected_fact_sheet.pdf) (June 6, 2013) ("ConnectED Fact Sheet").

revised or even reviewed since they were adopted in 1997. In particular, the Commission should (1) place per-student limits on support in order to provide incentives for applicants to use E-rate support in the most cost-effective manner and (2) revise the discount matrix to ensure that funding is targeted to the most economically-challenged schools.

Finally, the Commission should streamline the E-rate program rules and avoid adding new regulatory obligations to a program that is already overly-complex for both applicants and service providers.

**I. HIGH-CAPACITY BROADBAND CONNECTIONS ARE CRITICAL, AND SCHOOLS AND LIBRARIES ARE INCREASING BANDWIDTH RAPIDLY.**

Verizon supports the ConnectED initiative’s objective that at least 99 percent of the nation’s K-12 students should have access to a baseline level of connectivity that is sufficient to meet educational needs. As the *NPRM* notes, high-capacity connectivity in schools “is transforming learning by providing customized teaching opportunities, giving students and teachers access to interactive content, and offering assessments and analytics that provide students, their teachers, and their parents real-time information about student performance.”<sup>4</sup> Through these connections, students and teachers in all areas of the country can utilize interactive and collaborative distance learning applications. No matter the size or location of the school, broadband connectivity can provide access to high-quality courses, educators and learning tools online.<sup>5</sup> Verizon agrees with the Commission that this connectivity is important to help “prepar[e] our students to compete in the global economy.”<sup>6</sup>

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<sup>4</sup> *NPRM*, ¶ 3.

<sup>5</sup> *See id.*

<sup>6</sup> *Id.*

Services that meet schools' growing demand for capacity are already broadly available. Citing data from 2008, the National Broadband Plan found that 55 percent of schools across the country already had direct fiber connections.<sup>7</sup> In the five years since 2008, billions of dollars of additional private sector investment have further expanded the availability of advanced services. Verizon now offers switched Ethernet services at speeds up to 10 gigabits per second. Every year, Verizon's education customers are ordering higher and higher bandwidth connections to school buildings. Schools are now routinely ordering 100 megabit per second and gigabit switched-Ethernet services, and have begun to order 10 gigabit services as well.

Competing providers also have invested to expand the availability of high-capacity services. Schools are obtaining high-speed Ethernet services and other high-capacity services from cable companies and an array of new fiber providers. USAC data from FCC Form 471<sup>8</sup> applications filed by schools for the 2013 funding year show that applicants are seeking over \$350 million in E-rate support for Priority One services provided by the largest cable companies – a figure that has more than tripled over the past five years. In addition, the past five years have seen the emergence of new fiber providers and providers specializing in services provided to schools, such as ENA, Sunesys, and United Private Networks. Applicants' requests for E-rate support for those providers' services – most or all of which are high capacity services – have more than doubled over the past five years to almost \$300 million.<sup>9</sup>

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<sup>7</sup> See *Connecting America: The National Broadband Plan*, <http://download.broadband.gov/plan/national-broadband-plan.pdf>, at 254 (2010) (“National Broadband Plan” or “NBP”).

<sup>8</sup> See Schools and Libraries Universal Service Description of Services Ordered and Certification Form 471, [http://usac.org/res/documents/sl/pdf/forms/471\\_fy05.pdf](http://usac.org/res/documents/sl/pdf/forms/471_fy05.pdf) (“Form 471”).

<sup>9</sup> See Attachment 1, Support Requested for Services Provided by Cable & New Fiber Providers at “New Fiber Service Providers.”

Supplementing private sector investment, the federal government has made multi-billion dollar investments since 2008 to increase schools' access to high-capacity services. The Broadband Technologies Opportunities Program (BTOP) implemented by the Department of Commerce's National Telecommunications and Information Administration is connecting or upgrading roughly 10,000 schools in 44 states, of which almost 70 percent are getting access to speeds of at least 100 megabits.<sup>10</sup> Similarly, data provided by the Department of Education shows that almost 1 million students (of which 41 percent are eligible for free or reduced price lunch) attend school in areas served by the Rural Utilities Service's Broadband Investment Program (BIP).<sup>11</sup>

The E-rate program is already playing an important role in ensuring that high-capacity broadband is affordable even for schools that are economically disadvantaged and for rural schools that face uniquely high costs. High-capacity broadband services such as gigabit Ethernet services are eligible for E-rate support under existing program rules. Verizon and other providers are providing those services to schools and libraries today, and schools across the nation are seeking – and obtaining – E-rate support for gigabit Ethernet and other high-capacity services. In addition to supporting “lit” services such as gigabit Ethernet, the E-rate program has since 2010 supported dark fiber as an alternative for schools and libraries.<sup>12</sup> The program also

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<sup>10</sup> See BroadbandUSA Connecting America's Communities, [http://www2.ntia.doc.gov/connecting\\_americas\\_schools\\_to\\_next-generation\\_broadband](http://www2.ntia.doc.gov/connecting_americas_schools_to_next-generation_broadband) (July 1, 2013).

<sup>11</sup> See United States Department of Agriculture, *Advancing Broadband: A Foundation for Strong Rural Communities*, [http://www.rurdev.usda.gov/supportdocuments/RBB\\_report\\_whole-v4ForWeb.pdf](http://www.rurdev.usda.gov/supportdocuments/RBB_report_whole-v4ForWeb.pdf), at 3-4 (Jan. 2011).

<sup>12</sup> See *Schools and Libraries Universal Service Support Mechanism; A National Broadband Plan for our Future*, Sixth Report and Order, 25 FCC Rcd 18762, ¶¶ 8-19 (2010) (“*Schools and Libraries Sixth Report and Order*”).

helps cover the cost of nonrecurring special construction and other facilities costs associated with connecting schools and libraries to high-capacity broadband.

In addition to supporting high-capacity connections to schools, E-rate also already supports wireless connectivity within schools, one of ConnectED's goals. Since 1997, "Priority Two" E-rate support has helped ensure that connectivity is extended to classrooms of the most economically-disadvantaged schools. By 2005, 94 percent of instructional classrooms already had Internet access.<sup>13</sup> In addition to supporting the installation of cabling throughout schools, the E-rate program supports the other components that are necessary for Wi-Fi connectivity within schools, such as Wi-Fi access points.

Available data demonstrates that many schools are using E-rate support to help obtain high-capacity services of 100 megabits per second and above. While neither USAC nor the Commission publishes comprehensive information summarizing the capacity of schools' connections, Form 471 requests that applicants provide data about the number of buildings connected in each of several speed ranges. For this proceeding, Verizon reviewed Form 471 Block 2 connectivity data<sup>14</sup> for the public school systems in two sample states (Virginia and Maryland) and found that the vast majority of buildings are connected at the two highest-speed ranges reported on the Form 471 – the range from 50 megabits per second up to 100 megabits per second and the highest range, for services of 100 megabits per second or more.<sup>15</sup> In Virginia, for example, public school district applicants reported on their 2013 Form 471s that 1,716

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<sup>13</sup> See *NPRM* ¶ 2.

<sup>14</sup> See Form 471, "Impact of Services Ordered for Schools and Libraries from this Form 471," at 3 ("Block 2").

<sup>15</sup> See Attachment 2 at 1 (Virginia Public Schools Connectivity Data) and 3 (Maryland Public Schools Connectivity Data).

buildings (85 percent of the total reported) are connected in the two highest-speed ranges - 844 buildings (42 percent of the total) in the highest speed range (100 megabits per second or more) and 872 buildings (43 percent of the total) in the second highest-speed range (between 50 and 100 megabits per second).<sup>16</sup> Similarly, Maryland public school district applicants reported that 50 percent of their buildings are connected at 100 megabits per second or more; an additional 32 percent of buildings are connected in the second-highest speed range, from 50 megabits per second to 100 megabits per second.<sup>17</sup>

Nonetheless, as important as the E-rate program is, its focus is on connectivity. The ConnectED initiative recognizes that connectivity is not sufficient to improve educational outcomes by itself and must be coordinated with devices, applications, and teacher training.<sup>18</sup> Focusing on teacher training, the Verizon Foundation has established the Verizon Innovative Learning Schools (VILS) program to train teachers to integrate mobile devices into classroom instruction on science, technology, engineering, and math subjects.<sup>19</sup> Last year, 6,400 students (of which 57 percent qualify for free and reduced price lunch) from 12 underserved schools participated in the VILS program. Results of the project to date are positive, with teachers

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<sup>16</sup> See Attachment 2 at 1-3.

<sup>17</sup> See Attachment 2 at 5.

<sup>18</sup> See “President Obama Unveils ConnectED Initiative to Bring America’s Students into Digital Age,” <http://www.whitehouse.gov/the-press-office/2013/06/06/president-obama-unveils-connected-initiative-bring-america-s-students-di> (June 6, 2013) (“In addition to connecting America’s students, ConnectED harnesses the ingenuity of the American private sector [to] get new technologies into students’ hands and support digital learning content. ConnectED also ...ensure[s] that every educator in America receives support and training in using education technology tools to improve student learning.”).

<sup>19</sup> See <http://www.verizonfoundation.org/our-focus/#education>.

reporting increased engagement and academic achievement. Twelve additional schools were added to the program this year, reaching 11,500 students in total.

**II. THE COMMISSION SHOULD COLLECT AND ANALYZE BETTER DATA AND MAKE SUBSTANTIVE CHANGES TO THE E-RATE PROGRAM WITHIN A REASONABLE BUDGET.**

The *NPRM* seeks comment on a number of changes that would shift the focus of the E-rate program towards supporting the modern “21<sup>st</sup> Century broadband” connections that can support digital learning.<sup>20</sup> As is discussed in more detail below, the Commission lacks the comprehensive data about schools’ existing connectivity that it needs to identify where connectivity is lacking and to determine whether rule changes are necessary to address those gaps. Therefore, the Commission sequentially should: (1) set formal bandwidth targets for the E-rate program; (2) collect and analyze data about the capacity of schools’ connections; (3) maintain the existing fund cap while distributing support more efficiently; and (4) continue to explore support for mobile learning.

**A. The Commission Should Benchmark Schools’ and Libraries’ Broadband Connections against Specified Speed Targets.**

While E-rate is already helping schools obtain affordable access to high-capacity connections, the Commission should establish connectivity goals for the E-rate program – with specified bandwidth targets for schools serving 99 percent of students and target dates for achieving those bandwidth levels.<sup>21</sup> The Commission should use the bandwidth targets as a baseline to identify those schools and libraries that are lagging well behind and then develop appropriately tailored policy responses. In other words, the bandwidth targets should be a

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<sup>20</sup> See *NPRM* ¶¶ 17-19.

<sup>21</sup> See *id.* ¶¶ 21-22.

diagnostic tool to help determine where more help may be needed and focus solutions accordingly. The *2007 USF Program Management Order* expressly recognized both the benefits and statutory support for establishing long-term goals for the E-rate program, including developing useful performance and efficiency measures for the USF mechanisms, as well as for the administration of the program.<sup>22</sup>

The bandwidth targets that the Commission establishes should be reasonable, set with regard to engineering principles and educational needs, while taking into account the available level of E-rate support. Targets that are designed with engineering principles and educational needs in mind will likely vary depending on the size or type of school. For example, the target for a large high school will be different from the target for a small elementary school. Simple targets such as “one gigabit for every school” may overstate the required bandwidth, create a false impression that a school is lagging behind, and lead to inefficient expenditures of E-rate support.

Importantly, when establishing goals for the E-rate program, the Commission should not mandate that schools and libraries buy particular services or use particular technologies – such as fiber – in order to meet the benchmark speed targets.<sup>23</sup> Fiber deployment may be cost-prohibitive or simply unnecessary in some areas or for some schools, and no one service is best suited to all circumstances. Accordingly, the E-rate program should remain technology neutral,

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<sup>22</sup> See *Review of the Universal Service Fund Management, Administration, and Oversight, et al.*, Report and Order, 22 FCC Rcd 16372, ¶¶ 34-38 (2007) (“*2007 USF Program Management Order*”).

<sup>23</sup> See *NPRM* ¶ 77.

allowing schools and libraries the flexibility to select the technology that best meets their needs.<sup>24</sup>

**B. Better Data Is Needed to Determine Where Schools and Libraries Have Access to High-Capacity Broadband, Where Greater Access Is Needed, and How Best to Achieve that Access.**

In addition to setting appropriate bandwidth targets, the Commission should establish a mechanism to collect comprehensive data about schools' connectivity; determine how schools and libraries are measuring up to the targets; and then assess whether additional policy changes may be necessary to achieve the bandwidth targets for 99 percent of students. Good data about schools' existing connectivity is just as important for modernizing the E-rate program as the National Broadband Map<sup>25</sup> was for modernizing the high-cost program.

**1. The Commission Lacks Data to Benchmark to Specified Speed Targets.**

As the Commission has acknowledged, it does not have comprehensive data about schools' existing connectivity. When looking at the E-rate program in 2007, the Commission recognized that “[w]e do not have sufficient data at this time to establish goals for ... performance measures.”<sup>26</sup> Similarly, the National Broadband Plan found that “the FCC lacks comprehensive knowledge of the different types or capacities of broadband services that are

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<sup>24</sup> See *id.*

<sup>25</sup> See <http://www.broadbandmap.gov/>. According to the Commission, the data underlying the map “are the nation’s most current and best publicly available broadband deployment data.” *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Eighth Broadband Progress Notice of Inquiry, 26 FCC Rcd 11800, ¶ 9 (2011).

<sup>26</sup> 2007 USF Program Management Order, ¶ 39.

supported through the E-rate program” and recommended that the Commission “modify the relevant FCC forms to determine more accurately how schools and libraries connect to the Internet, their precise levels of connectivity, and how they use broadband.”<sup>27</sup> As explained in the National Broadband Plan, “the collection of this type of information from E-rate program participants will enable the FCC to determine how the E-rate program will better meet applicants’ needs.”<sup>28</sup>

Much of the information that the Commission has about schools’ broadband connectivity comes from a survey that the Commission conducted in 2010.<sup>29</sup> While that survey obtained much useful information, it has several shortcomings. First, the survey obtained data from only a small percentage of E-rate participants. The survey was directed to a sample of just 5,000 of the nearly 23,000 E-rate recipients from funding year 2008,<sup>30</sup> of which only 1,060 actually returned completed surveys – less than 5 percent of all E-rate recipients for that funding year.<sup>31</sup>

Second, and more fundamentally, the information from the E-Rate Program and Broadband Survey, collected and analyzed in 2010, is now out of date. Since 2010, carriers have continued to invest in their networks and the federal government has distributed billions of dollars for broadband construction through the BTOP and BIP programs. There have been four E-rate application cycles since 2010, during which numerous schools and libraries have received over \$10 billion to implement changes to their facilities and improve their connectivity levels.

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<sup>27</sup> National Broadband Plan, Recommendation 11.20 at 238 (footnote omitted).

<sup>28</sup> *Id.*

<sup>29</sup> See *2010 E-Rate Program and Broadband Usage Survey: Report*, 26 FCC Rcd 1 (2011) (“E-Rate Program and Broadband Survey”)

<sup>30</sup> *See id.* at 19.

<sup>31</sup> *Id.*

The bandwidth requested by Verizon's E-rate customers has increased every year. And there have been a number of intervening regulatory changes that were intended to increase access to high-capacity broadband. In particular, the *Schools and Libraries Sixth Report and Order* added dark fiber to the Eligible Services List (ESL), made support available for lit fiber from any provider, and indexed E-rate for inflation.<sup>32</sup> As such, survey data from 2010 does not provide a reliable picture of schools' connectivity in 2013.

In addition to the 2010 E-Rate Program and Broadband Survey, USAC collects limited data from applicants in Block 2 of their Form 471 applications. But applicants do not fill out Block 2 consistently, and some applicants do not fill out Block 2 at all. Moreover, Block 2 shows only *how many schools* covered by the form have access to connections in the specified bandwidth ranges, not *which schools* have those connections or *how many students* have access at those speeds.

The Commission should address the gap between the information the Commission has and what it needs to benchmark high-capacity connectivity to specified speed targets. For example, the Commission could require all E-rate applicants to report the bandwidth for each school and the number of students enrolled in that school (or NCES code).<sup>33</sup> For each school, the bandwidth reporting could be similar to Block 2, with additional speed ranges to capture gigabit-and-higher services. The Commission should collect that data on an ongoing basis in order to track schools' progress towards the Commission's goals.

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<sup>32</sup> See *Schools and Libraries Sixth Report and Order*, ¶¶ 8-9 (adding dark fiber to ESL), ¶¶ 10-13 (making support available to acquire lit fiber from any provider), and ¶¶ 34-40 (indexing for inflation).

<sup>33</sup> See *NPRM* ¶ 31.

Once it has created a mechanism to collect connectivity data from schools, the Commission should analyze applicants' connectivity data to identify potential problem areas. Among other things, the Commission should analyze that data to determine the percentage of students that attend schools for which the Commission's bandwidth targets have been met. For schools that have not yet met the targets, the Commission should analyze the data to determine whether schools that are lagging behind have common characteristics – *e.g.*, common geography, demographics, school size, rural or urban status, or the like.

The Commission could supplement its statistical analysis of applicant-reported data by conducting its proposed survey of those schools that do not meet the connectivity targets to determine why they have not done so.<sup>34</sup> There are many reasons why a school might be lagging behind, some of which are potentially addressable through E-rate (such as affordability and availability) and others that are not (such as device costs or the need for teacher training). Additional survey information from those particular schools will help the Commission to determine why a school's broadband connectivity is falling short of the targets.

**2. After the Commission Has Collected and Analyzed Connectivity Data, it Should Make Sensible Changes to the Program.**

Once the Commission has collected and analyzed the connectivity data to identify which schools and libraries are not meeting the broadband connectivity goals, it then can determine the best strategies for overcoming any obstacles and meeting the program's goals by the target date. At this point, it is difficult to predict exactly what challenges the Commission may identify and what program changes might be necessary. But that is precisely why data collection and analysis are so important here.

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<sup>34</sup> See *id.* ¶ 38.

For example, if the data were to show that remote rural schools are lagging behind in connectivity and the survey of those schools indicates that one challenge is the cost of extending facilities to the school, the Commission could consider providing additional E-rate support for the up-front construction and installation costs.<sup>35</sup> Or the Commission could consider modifying the program’s treatment of construction costs.<sup>36</sup> Similarly, if data were to show that small rural schools were failing to meet the targets because of high per-student ongoing costs, the Commission could consider increasing the discount percentage for such schools.<sup>37</sup>

As these examples demonstrate, more information is needed before implementing far-reaching changes to the E-rate program. The Commission must first identify which schools and libraries are not meeting the desired connectivity levels and why before formulating a response and changing the E-rate program. Otherwise, the Commission may not be addressing the right problems.

**C. The Commission Should Distribute Current Support More Efficiently to Meet the Goals of ConnectED.**

As the Commission explained in the *Schools and Libraries Sixth Report and Order*, “[e]nd users ultimately bear the cost of supporting universal service.”<sup>38</sup> Accordingly, “the Commission must balance its desire to ensure that schools and libraries have access to valuable communications opportunities with the need to ensure that consumer rates for communication

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<sup>35</sup> See *id.* ¶¶ 75-77.

<sup>36</sup> See *id.* ¶¶ 72-73.

<sup>37</sup> See *id.* ¶ 133.

<sup>38</sup> *Schools and Libraries Sixth Report and Order* ¶ 36.

services remain affordable.”<sup>39</sup> In order to promote broadband connectivity, the Commission should take several steps to distribute E-rate support more efficiently within the existing E-rate fund.

First, the Commission should adopt per-student funding limits for at least some schools, such as the largest applicants, with separate limits for Priority One and Priority Two services. As the Commission observes in the *NPRM*, per-student requests for E-rate funding vary widely from applicant to applicant, with some applicants requesting support levels that are far higher than similarly-situated schools.<sup>40</sup> A system of per-student limits will help ensure that all schools are making cost-effective technology choices.<sup>41</sup> Such per-student limits were first recommended ten years ago by the Task Force on Prevention of Waste, Fraud, and Abuse, which explained that a ceiling on the amount of funding that an applicant can request “would help ensure that applicants are submitting the most cost-effective funding requests.”<sup>42</sup>

Second, the Commission should revisit the discount matrix, which the Commission established in 1997 without explaining the rationale for either the breakpoints between levels or the discount percentages. As the *NPRM* notes, parties have expressed concern that the higher discount percentages encourage inefficient spending.<sup>43</sup> There are equally important concerns about the level of discounts provided to wealthier schools. The existing discount matrix provides

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<sup>39</sup> *Id.*

<sup>40</sup> *See NPRM* ¶ 135.

<sup>41</sup> *See id.* ¶ 138.

<sup>42</sup> Schools and Libraries Division, USAC, *Recommendations of the Task Force on Prevention of Waste, Fraud, and Abuse*, at 5, <http://www.fundsforlearning.com/docs/2013/02/Erate%20Task%20Force%20Report.pdf> (Sept. 22, 2003).

<sup>43</sup> *See NPRM* ¶¶ 118-122.

a 40 percent discount to any school as long as at least 1 percent of the students in the school are eligible for a free or reduced price lunch. Because even schools in wealthy areas routinely meet the 1 percent threshold,<sup>44</sup> the E-rate program provides discounts of 40 percent or more to school systems in even the wealthiest areas of the nation. The Commission should revisit the discount matrix in order to ensure that funding is targeted to only those schools that are economically disadvantaged, and reduce funding for those schools in which the percentage of students eligible for free or reduced price school lunches is below the national average.

Per-student limits and modifications to the discount matrix are a more straightforward way to ensure efficient use of E-rate funds than some of the alternatives suggested in the *NPRM*, such as phasing out support for some or all voice services.<sup>45</sup> While the focus of E-rate should be on broadband and on reaching the broadband connectivity targets – and not on voice – attempts to exclude “services used only for voice” from support will require difficult line-drawing; may increase the number of applications requiring cost allocation; inevitably will create confusion and uncertainty for applicants and service providers; and may even discourage adoption of newer technologies with voice functionality.

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<sup>44</sup> For example, Little River Elementary School in Loudoun County, Virginia, a school in which only 1.8 percent of students are eligible for free or reduced price lunch, is eligible for a 40 percent discount. *See* [http://www.slforms.universalservice.org/Form471Expert/PrintPreview.aspx?appl\\_id=879514&prevPage=true&isDisplay=true](http://www.slforms.universalservice.org/Form471Expert/PrintPreview.aspx?appl_id=879514&prevPage=true&isDisplay=true) (last visited Sept. 16, 2013). Similarly, the E-rate program is providing a 40 percent discount to the Landon School, a private school outside Washington, DC, in which 2.5 percent of students are eligible for free or reduced price lunch. *See* [http://www.slforms.universalservice.org/Form471Expert/PrintPreview.aspx?appl\\_id=904111&prevPage=true&isDisplay=true](http://www.slforms.universalservice.org/Form471Expert/PrintPreview.aspx?appl_id=904111&prevPage=true&isDisplay=true) (last visited Sept. 16, 2013).

<sup>45</sup> *See NPRM* ¶¶ 105-110.

The Commission should not eliminate support for cellular data plans and air cards.<sup>46</sup> Instead, the Commission should continue to allow schools to make technology choices that best meet their needs. The best way to ensure that schools are making cost-effective technology choices is through per-student limits or modifications to the discount matrix, not by limiting technology choices.

In addition to imposing per-student limits and revisiting the discount matrix, the Commission should take specific steps to encourage efficient use of Priority Two funds for internal connections. As the *NPRM* notes, the State E-rate Coordinators' Alliance (SECA) has made several proposals for distributing Priority Two support more equitably.<sup>47</sup> The Commission should adopt SECA's proposal to limit eligibility to the specific items necessary to ensure that the transmission of bandwidth inside the building is sufficient.<sup>48</sup> The Commission should also phase out support for basic maintenance of internal connections.<sup>49</sup> Given the difficulties in monitoring program compliance for basic maintenance,<sup>50</sup> the Commission's goals would be better served by phasing out support for basic maintenance and reallocating that funding to support broadband.

The Commission also should ensure cost-effective use of available funding by rejecting proposals to allow E-rate money to be used by schools and libraries to build or purchase their

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<sup>46</sup> *See id.* ¶ 102.

<sup>47</sup> *See id.* ¶¶ 104, 145.

<sup>48</sup> *See id.* ¶ 104.

<sup>49</sup> *See id.* ¶ 101.

<sup>50</sup> *See id.*

own wide area networks<sup>51</sup> or to construct wireless community hotspots.<sup>52</sup> The E-rate fund is already stretched and network construction is expensive. Using E-rate to fund construction by schools or libraries – which are not best suited to building telecommunications networks in any event – will unnecessarily divert funds that other schools and libraries could use to obtain high-capacity connections.

**D. The Commission Should Continue to Explore E-rate Support for Mobile Learning.**

A modernized E-rate program should not be limited to supporting “big pipes” to schools. New models in which learning takes place outside the classroom are emerging. As the Commission recognized in 2010, “[a]dvances in technology have enabled students to continue to learn well after the school bell rings, including from their homes or other locations, for example, youth centers.”<sup>53</sup> The National Broadband Plan found that “[r]estricting student access to network services while on school grounds is becoming increasingly indefensible given the new educational opportunities presented by cloud-based desktops, smartphones, tablet PCs, netbooks, and other highly-portable solutions.”<sup>54</sup>

The National Broadband Plan recommended that the Commission provide full E-rate support for wireless Internet access service for portable learning devices that are used beyond school or library premises.<sup>55</sup> In the *Schools and Libraries Sixth Report and Order*, the

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<sup>51</sup> See *id.* ¶ 80.

<sup>52</sup> See *id.* ¶¶ 319-23.

<sup>53</sup> *Schools and Libraries Sixth Report and Order* ¶ 42.

<sup>54</sup> NBP at 257.

<sup>55</sup> See *id.*; *Schools and Libraries Sixth Report and Order* ¶ 42.

Commission created a pilot program to investigate the merits and challenges of wireless off-premises connectivity services, and to help determine whether they should ultimately be eligible for E-rate support. Trial participants have since provided the Commission with data collected as a result of the program and narratives describing lessons learned. The Commission should continue to move forward with its examination of potential E-rate support for mobile learning.

### **III. THE COMMISSION SHOULD MAKE PROCEEDURAL CHANGES TO STREAMLINE PROGRAM ADMINISTRATION.**

Verizon shares the Commission's desire to streamline E-rate to maximize program dollars and to simplify and improve the administration of the program. As the Commission has recognized, E-rate program administration today is time-consuming and burdensome in some respects, requiring both applicants and providers to jump through regulatory hoops that only add cost and discourage program participation. Several of the steps the Commission has proposed in the *NPRM* would address these issues – improving the process without imposing additional regulations or burdens – and should be adopted. However, the *NPRM* also contains additional proposals that the Commission should not adopt because they run counter to the Commission's objectives and would increase the burden on program participants or otherwise are not desirable as a matter of policy.

#### **A. The Commission Should Adopt Its Proposals regarding Multi-Year Contracts.**

Under current rules, E-rate applicants are permitted to enter into multi-year contracts, but must file a Form 471 application and go through the same review process for each year of the contract.<sup>56</sup> As other stakeholders already have suggested, it is a waste of applicants' time to

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<sup>56</sup> See *NPRM* ¶ 239.

prepare and submit the Form 471 – and a waste of USAC’s time to review those applications – for the same services under the same contracts every year.<sup>57</sup> Not only is that application process duplicative, it represents an additional burden and cost to applicants that may discourage them from entering into multi-year contracts, which the Commission has recognized are desirable because they have the “potential to drive down service costs [and] provide more certainty.”<sup>58</sup>

The Commission therefore should adopt the proposal to modify the rules to allow E-rate applicants to file a single Form 471 application and go through the review process just one time for each multi-year contract (absent a change in the contract and/or the addition of new products or services).<sup>59</sup> Similarly, the Commission should enact the proposal to permit multi-year funding commitments in the E-rate program.<sup>60</sup> Just as the Commission did in the *Rural Health Care Support Order*, it should allow applicants to request a funding commitment to cover each of the years in a multi-year contract.<sup>61</sup> However, multi-year commitments should be conditional and subject to the funds being available in subsequent years.<sup>62</sup>

Moreover, while the Commission has focused its multi-year contract proposals on contracts of up to three years in length, longer term contracts may be more desirable in some circumstances. For example, as the Commission notes, “where significant new fiber builds are

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<sup>57</sup> *See id.*

<sup>58</sup> *Id.* ¶ 240.

<sup>59</sup> *See id.* ¶ 241.

<sup>60</sup> *See id.* ¶ 242.

<sup>61</sup> *Id.* (citing *Rural Health Care Support Mechanism*, Report and Order, 27 FCC Rcd 16678, ¶¶ 296-97 (2012) (“*Rural Health Care Support Order*”).

<sup>62</sup> *See id.*

involved, long term contracts could be critical to keeping recurring costs low.”<sup>63</sup> Accordingly, the Commission should not impose a strict three-year limit on multi-year contracts, but instead preserve flexibility to allow for multi-year contracts for longer terms where those make sense – including for fiber construction – and are permitted under state and local appropriations laws.

**B. The Commission Should Adopt Its Proposals to Change the Disbursement Process and Certification Requirements for BEAR Applicants.**

Under current rules, when schools and libraries obtain eligible services from a service provider, they may pay the service provider the full cost of the services and then seek to recover the appropriate amount from USAC using FCC Form 472 – the Billed Entity Application for Reimbursement (BEAR) Form.<sup>64</sup> When using the BEAR method, the service provider stands in as a “middle man” between USAC and the school or library: USAC remits E-rate support payments to the service provider, which then reimburses the applicant.<sup>65</sup>

Having service providers serve as a pass-through in the disbursement process places an additional burden on those providers to prepare and submit the necessary request for payment and requires extra levels of coordination between the applicant and the service provider on several thousand requests for payment, which adds extra steps and inevitable delay in a process that already can be involved and time-consuming. Accordingly, the Commission should adopt the proposal to allow applicants to receive reimbursement directly from USAC.<sup>66</sup>

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<sup>63</sup> *Id.* ¶ 244.

<sup>64</sup> *See id.* ¶ 260.

<sup>65</sup> *See id.*

<sup>66</sup> *See id.* ¶ 261.

The Commission also should adopt the proposal to ease the burden caused by the current BEAR Form 472 certification requirements.<sup>67</sup> Today, service providers must make a certification each time they file a Form 472 – which results in Verizon (and other large providers) having to submit thousands of certifications each year.<sup>68</sup> The Commission therefore should adopt the proposal that the Service Provider Annual Certification Form (FCC Form 473) incorporate Block 4, “Service Provider Acknowledgment,” of the current Form 472, such that service providers can simply make one annual certification via FCC Form 473 that will cover all of the BEAR-related certification requirements for the year.

**C. The Commission Should Clarify or Modify the Gift Rules.**

As several parties have noted, there is considerable uncertainty surrounding the gift rules adopted in the *Schools and Libraries Sixth Report and Order*. The Commission should clarify or modify the gift rules in two important respects. First, the Commission should clarify that it is not a violation of the gift rules for a service provider to undertake a short-term market or technology trial with schools or libraries that may involve free or discounted pricing. Service providers routinely undertake such market or technology trials with customers outside of the E-rate context in order to test new services and ensure that they meet customers’ needs. By clarifying that such trials do not violate the gift rules, the Commission will facilitate the deployment of new services that benefit schools and libraries appropriately.

Second, the Commission should ensure that schools and libraries may take advantage of private philanthropy by adopting a bright line rule allowing charitable donations as long as they are not contingent on the purchase of E-rate supported services and are consistent with a

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<sup>67</sup> See *id.* ¶ 263.

<sup>68</sup> *Id.*

reasonable maximum donation. Such a bright-line rule would avoid most of the potential to game the rule and would help deter potential fraud and abuse.

**D. The Existing E-rate Program Already Allows for Consortium and Bulk Buying in the Appropriate Circumstances.**

The *NPRM* seeks comments on a number of proposals related to consortium purchasing or other forms of bulk buying.<sup>69</sup> However, as the *NPRM* recognizes, applicants already have the ability, under the existing E-rate program, to purchase services on a consortium or other bulk basis – including under state master contracts – where doing so makes sense.<sup>70</sup> And, in some instances, bulk buying does not make sense. Accordingly, the Commission should not mandate or prefer consortium or other bulk purchasing options. A given school or library should have the flexibility to proceed on an individual basis to obtain the best combination of services and prices that suit its needs under the program.

**E. The Proposed Changes regarding Pricing Disclosures Are Unnecessary and Ill-Advised.**

The Commission should reject proposals for USAC to publish more granular information on the prices E-rate applicants pay for services<sup>71</sup> or the bids they receive for those services.<sup>72</sup>

Publishing information regarding the prices available to or paid by a particular school or library may not help the marketplace or affect others' prices at all. The varying individual needs of a particular customer, the market forces at play, and the sheer volume of service options

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<sup>69</sup> See *NPRM* ¶¶ 177-90.

<sup>70</sup> See *id.* ¶¶ 179 (detailing current consortia), 186 (identifying other forms of bulk buying).

<sup>71</sup> See *id.* ¶ 191.

<sup>72</sup> See *id.* ¶ 195.

reduce the effectiveness of such disclosures and, if anything, may add to customer confusion and frustration.

But, to the extent this information is helpful, much of it already is available to applicants. Many service providers' prices are available in publicly available tariff filings or state or regional master contracts. In some states, after a bid is accepted, the pricing information is required to be disclosed under state law. And, as the Commission notes, current program rules already require service providers to "keep and retain records of rates charged to and discounts allowed for eligible schools and libraries" and to make those records available for public inspection.<sup>73</sup>

Furthermore, although some laws require or provide for the release of information in the government's possession, other laws – including the federal Freedom of Information Act (FOIA) and the Trade Secrets Act – protect proprietary and confidential business information from being released. For example, although federal contracts may reveal the total price (or value) of the contract, federal courts have enjoined the federal government from releasing unit pricing as a trade secret under FOIA Exemption 4.<sup>74</sup> Many states have analogous freedom of information provisions. Similarly, the D.C. Circuit has held that line-item pricing information is "exactly the type of information that constitutes 'confidential commercial or financial information'" and found that disclosure of such commercial or financial information that is likely to cause substantial competitive harm to the person who supplied it "would violate the Trade Secrets Act."<sup>75</sup> As that court explained, providing detailed pricing information that would permit competitors to underbid and/or permit other customers to "ratchet down" prices "are precisely

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<sup>73</sup> *Id.* ¶ 197.

<sup>74</sup> *See, e.g., Canadian Commercial Corp. v Dep't of Air Force*, 514 F.3d 37 (D.C. Cir. 2008).

<sup>75</sup> *MCI Worldcom Inc. v. GSA*, 163 F. Supp. 2d 28 (D.C. Cir. 2001) (citing *McDonnell Douglas v. NASA*, 180 F.3d 303, 306 (D.C. Cir. 1999)).

the injuries that led this Circuit to declare that line item pricing was confidential information and not disclosable.”<sup>76</sup>

These questions also have implications for the state competitive bidding rules with which applicants must comply. If the Commission were to inject itself into the process and provide additional information on competitors’ prices, it could skew the competition in an unfair manner. This could potentially result in procurement integrity violations and protests of contract awards. Bid protests could slow down the award of contracts and risk an applicant’s timely submission of its application and receipt of E-rate funds.

But, even if collecting and publishing this type of pricing information were allowable, it would not be the correct approach as a matter of policy. And certainly the Commission should not be considering taking a more active role in assisting applicants in identifying cost-effective purchasing options.<sup>77</sup> The Commission is ill-equipped and would be ill-advised to wade further into the area of pricing and/or pricing controls. Nor is that the purpose of the E-rate program.

**F. The Commission Should Not Take on the Role of Policing State and Local Procurement Law.**

The *NPRM* proposes to require service providers to certify compliance with state and local procurement laws.<sup>78</sup> However, the Commission is not in a position to monitor or enforce state and local procurement laws. Compliance with state and local procurement law is a matter best left to state and local authorities, and the Commission should not look to take on a new role for which it is not well-suited and that would require it to expend additional program resources.

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<sup>76</sup> *Id.*

<sup>77</sup> *See NPRM* ¶ 198.

<sup>78</sup> *See id.* ¶¶ 310-11.

**G. The Commission Should Be Cautious in Seeking to Revise the Competitive Bidding Process.**

The Commission should proceed with caution when considering changes to the competitive bidding process,<sup>79</sup> as much of what occurs today is driven by market forces and not by any failings in the E-rate program that need to be fixed. The Commission should not implement reforms that will artificially alter the market, impose greater burdens on applicants or service providers, all of which would have unintended consequences.

Indeed, rather than add an extra burden by, for example, requiring applicants to certify that they have reviewed state master contracts,<sup>80</sup> the Commission should provide more education to applicants so that they have more information on what state master contracts (and other contracts) are available for them to order from and what state and local acquisition officials can help them with the process. Providing a clear reference to available state and local resources will help applicants identify additional pricing.

By the same token, the Commission should confirm that applicants are eligible to purchase off a state master contract without going through the E-rate competitive bidding process, rather than restrict their ability to do so.<sup>81</sup> When an eligible applicant purchases from a state master agreement, it already has satisfied state competitive bidding rules – which should provide the Commission with sufficient comfort that the pricing is cost-efficient. Indeed, the Commission took the same approach in the *Rural Health Care Support Order*, adopting a competitive bidding exemption for healthcare providers that purchased services and/or equipment from state master contracts, if such contracts were awarded pursuant to applicable

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<sup>79</sup> See *id.* ¶¶ 202-10.

<sup>80</sup> *Id.* ¶ 204.

<sup>81</sup> *Id.* ¶ 207.

state or local competitive bidding requirements.<sup>82</sup> As the Commission recognized, this approach “helps streamline the application process by removing unnecessary and duplicative government competitive bidding requirements while still ensuring fiscal responsibility.”<sup>83</sup>

The Commission also seeks comment on whether, if an applicant receives only one bid or no bid, USAC should automatically engage in an additional review of the application to determine whether the service provider has offered the lowest corresponding price.<sup>84</sup> However, *most* applications involve one or no bids. As a result, the additional review would be time-consuming and burdensome – diverting money and resources that are better spent on the schools and libraries – and very well could prove entirely impractical and unworkable.

Accordingly, as an alternative, the Commission should adopt its proposal to require service providers to certify compliance with the lowest corresponding price rule on the Form 473.<sup>85</sup> While the *NPRM* proposes to require this certification on the Form 474, the certification requirement should only be on an annual basis (included on the Form 473) to avoid the burden associated with making multiple certifications throughout the year with every Form 474 filing. An annual certification will be much less burdensome than the contemplated review process and, as the Commission recognized, “[r]equiring such a certification will provide additional incentive for service providers to offer schools and libraries with competitive prices ... and hold service providers further accountable for complying with this rule.”<sup>86</sup>

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<sup>82</sup> See *Rural Health Care Support Order*, ¶ 257.

<sup>83</sup> *Id.*

<sup>84</sup> *NPRM* ¶ 209.

<sup>85</sup> *Id.* ¶ 309.

<sup>86</sup> *Id.*

## **H. The Commission Should Not Adopt Unreasonable Program Compliance Requirements.**

*Officer signatures.* The Commission proposes to amend its certification rules to require that an “officer” of the service provider (rather than an “authorized person”) make the certifications on various program forms – including Forms 472, 473 and 474.<sup>87</sup> However, the *NPRM* has not identified any issues or problems under the current approach with respect to who makes these certifications, and Verizon does not see any, either. Indeed, for large service providers in particular, an “officer” may have less relevant information and be farther removed from the E-rate process than the “authorized persons” who make the certifications today.

*Audits.* The *NPRM*’s proposal to adopt an additional post-commitment independent audit requirement would be of limited utility.<sup>88</sup> The *NPRM* asks whether E-rate applicants or service providers should be subject to a third-party independent audit (like in the USF Lifeline program) as a means of supplementing the Commission’s existing Beneficiary and Contributor Audit Program.<sup>89</sup> But such a supplementary audit is unnecessary – particularly given the likely costs. In Verizon’s experience – particularly with high cost funding audits – independent audits of this nature are very expensive and not productive. There are very few outside auditors that have the very narrow subject matter expertise necessary to conduct a meaningful review in this area.

*Document retention.* The Commission need not extend the E-rate document retention requirements to ten years to facilitate audits or other program investigations.<sup>90</sup> The *NPRM* notes

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<sup>87</sup> *Id.* ¶¶ 300, 302-305.

<sup>88</sup> *See id.* ¶ 315.

<sup>89</sup> *Id.*

<sup>90</sup> *See id.* ¶¶ 295-97.

that the *USF/ICC Transformation Order*<sup>91</sup> extended the record retention requirement for recipients of high-cost support from five to ten years to provide adequate support for potential litigation under the False Claims Act,<sup>92</sup> and notes that a similar extension was proposed for eligible telecommunications carriers receiving low-income support.<sup>93</sup> But the *NPRM* does not provide any rationale for the additional administrative burden of this expanded record retention requirement, other than the high-cost and low-income examples. And, in any event, the federal False Claims Act was not enacted to establish a new, decade-long document retention requirement across all federal programs. Indeed, federal acquisition regulations generally only impose a three-year document retention obligation after the final payment under a contract.<sup>94</sup> And the Commission previously has found five years to be a sufficient retention period for records involving the E-rate program.<sup>95</sup> Without a stronger showing of need, the Commission should not change course and impose such a burdensome record retention requirement on E-rate participants.

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<sup>91</sup> *Connect America Fund, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶ 620 (2011) (“*USF/ICC Transformation Order*”).

<sup>92</sup> 31 U.S.C. §§ 3729-33.

<sup>93</sup> *NPRM* ¶ 296 (citing *Lifeline and Link Up Reform and Modernization, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, ¶¶ 505-506 (2012)).

<sup>94</sup> See 48 C.F.R. §§ 4.703(a)(1), 52.212-5(d).

<sup>95</sup> See, e.g., 47 C.F.R. § 54.504(a)(1)(x).

**CONCLUSION**

The Commission should update and modernize the E-rate program consistent with Verizon's comments herein.

Respectfully submitted,

By: /s/ David L. Haga

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Wireless*

# Attachment 1

Support Requested for Services  
Provided by Cable &  
New Fiber Providers

## ATTACHMENT 1: SUPPORT REQUESTED FOR SERVICES PROVIDED BY CABLE & NEW FIBER PROVIDERS

CABLE SERVICE PROVIDERS	SPINs	REQUESTED SUPPORT - FORM 471 BLOCK 5	
		2008	2013
		TIME WARNER CABLE	143026699 143028901 143019523 143027380 143028428 143030626 143029320 143031364 143028429 143030863 [+ multiple other SPINs]
CABLEVISION	143000072 143007246 143013604 143005200	\$4,847,065	\$85,486,675
COX	143005575 143016765 143000014 143014467 143000013 143016764 143018999 143006715 143017743 143022568 [+ multiple other SPINs]	\$22,322,701	\$57,625,203
COMCAST	143003990 143034516 143013564 143025596 143007960 143035551 143013989 143034517 143026653 143025449 [+ multiple other SPINs]	\$16,559,965	\$53,719,096
CHARTER	143027616 143005817 143027346 143024207 143027585 143033155 143027752 143027345 143027344 143027625 [+ multiple other SPINs]	\$20,819,849	\$33,735,029
BRIGHTHOUSE	143016611 143020747 143032631 143028288	\$4,975,091	\$15,310,699
SUDDENLINK	143016446 143030633 143030558 143030560 143030541 143030559 143030561	\$3,591,876	\$8,007,820
WOW/KNOLOGY	143008523 143034674 143001542 143016849 143015984 143001464 143017328 143029255 143015480	\$952,445	\$1,355,214
MIDCONTINENT	143001179	\$292,666	\$1,160,901
<b>TOTAL</b>		<b>\$108,610,389</b>	<b>\$373,270,474</b>

NEW FIBER SERVICE PROVIDERS	SPINs	REQUESTED SUPPORT - FORM 471 BLOCK 5	
		2008	2013
		ENA Services, LLC	143030857
Sunesys, LLC	143019764	\$30,419,339	\$37,019,276
South Carolina Net, Inc DBA Spirit Telecom	143001237	\$8,800,251	\$17,140,751
Unite Private Networks, LLC	143029868	\$3,346,555	\$16,198,829
Contera	143025700 143032050	\$8,750,691	\$14,165,521
OneNet (Oklahoma State Regents)	143015254	\$5,196,521	\$10,209,102
Fiber Technologies Networks, L.L.C.	143019354	\$10,610,586	\$9,083,026
Information Transport Solutions, Inc.	143008119	\$4,282,480	\$6,136,884
Information Transport Solutions, Inc.	143008119	\$4,282,480	\$6,136,884
Sidera	143005274 143020735	\$4,365,323	\$5,745,060
Zayo	143023855 143030047 143033526	\$218,196	\$5,738,979
Merit Network, Inc.	143004331	\$1,706,612	\$4,243,630
South Dakota Network, LLC	143002997	\$1,817,323	\$3,654,196
Southern Light, LLC	143026293	\$2,729,468	\$3,395,064
Last Mile Inc	143023276	\$6,576,554	\$3,391,788
DCN, LLC	143022264	\$2,115,101	\$3,163,984
PenTeleData Limited Partnership I	143004441	\$2,508,805	\$2,991,091
Meet Point Networks LLC	143035519	\$0	\$2,837,349
Cogent	143025258 143035907	\$297,500	\$2,714,762
Phonoscope	143008740 143035542	\$1,521,185	\$2,657,622
K-PowerNet, LLC	143025502	\$431,316	\$2,568,890
Fatbeam, LLC	143034664	\$0	\$2,377,395
Sho-Me Technologies, LLC	143004637	\$1,576,715	\$1,952,512
Hudson Valley DataNet, LLC	143022679	\$1,736,057	\$1,940,606
CVIN, LLC	143035853	\$0	\$1,404,810
Southern Communications, Inc.	143000842	\$2,700,801	\$1,389,414
Nebraska Link LLC	143035006	\$0	\$1,381,845
Parker FiberNet, LLC	143031443	\$0	\$1,124,901
Sun Microwave, Inc	143024442	\$743,501	\$1,112,919
Lightspeed Networks Inc	143030188	\$1,556,348	\$1,106,109
FPL FiberNet, LLC	143033075	\$0	\$1,037,857
<b>TOTAL</b>		<b>\$146,691,423</b>	<b>\$280,472,038</b>

# Attachment 2

## Virginia and Maryland Public Schools Connectivity Data

## ATTACHMENT 2: VIRGINIA PUBLIC SCHOOLS CONNECTIVITY DATA

DISTRICT NAME	BEN	FORM 471	NUMBER OF BUILDINGS CONNECTED AT SPECIFIED BANDWIDTH (FORM 471 BLOCK 2)								Total Buildings Reported	NOTES
			200 kbps - 1.5 Mbps	1.5 Mbps- 3 Mbps	3 Mbps- 10 Mbps	10 Mbps- 25 Mbps	25 Mbps- 50 Mbps	50 Mbps- 100 Mbps	Greater than 100 Mbps			
FAIRFAX COUNTY PUBLIC SCHOOLS	126423	909816	0	0	0	0	0	224	0	224		
NORFOLK PUBLIC SCHOOL DISTRICT	197129	878333, 904456, 917586	0	0	0	0	0	0	56	56		
RICHMOND PUBLIC SCHOOLS	126510	911173, 914675, 919173	0	0	0	0	0	0	54	54		
LOUDOUN COUNTY SCHOOL DISTRICT	126347	879514	0	0	0	0	0	4	0	4	Note 1	
PRINCE WILLIAM COUNTY PUBLIC SCHOOLS	150208	879526	0	0	0	0	0	95	0	95		
HENRICO COUNTY SCHOOL DISTRICT	126514	915343, 928198	0	0	0	0	0	75	2	77		
CHESTERFIELD COUNTY PUBLIC SCHOOLS	126544	903535, 918370, 922035, 926034, 928102, 928286	0	0	2	0	0	0	68	70		
DANVILLE CITY SCHOOL DISTRICT	126639	899705	0	0	0	0	0	0	16	16		
ARLINGTON PUBLIC SCHOOL DIST	126433	895829	0	0	0	0	0	0	38	38		
HAMPTON CITY SCHOOL DISTRICT	126534	929338, 930674, 930740, 930756, 930817, 930911	0	0	0	4	0	34	1	39		
PORTSMOUTH PUBLIC SCHOOLS	126540	910729, 885506, 910673, 925315	0	0	1	5	15	3	0	24		
ROANOKE CITY PUBLIC SCHOOLS	126573	918293	0	0	0	0	0	31	0	31		
CHESAPEAKE PUBLIC SCHOOL DIST	126519	881295	0	0	0	1	56	4	2	63		
ALEXANDRIA CITY PUB SCH DIST	126436	879449	0	0	0	0	0	55	0	55		
CAMPBELL COUNTY SCHOOL DIST	126642	899573, 899952, 899972	0	0	0	0	0	0	20	20		
FRANKLIN COUNTY PUBLIC SCHOOLS	126588	895334, 895324, 894808	0	0	0	0	0	0	17	17		
AUGUSTA COUNTY SCHOOL DISTRICT	126479	891335	0	0	0	0	0	0	21	21		
ROANOKE COUNTY SCHOOL DISTRICT	126572	902897, 902952, 902964, 902999	0	0	0	0	0	0	23	23		
LOUISA COUNTY SCHOOL DISTRICT	126501	913721, 915402, 916237, 916329, 916422	0	0	0	0	0	4	1	5		
NORTHAMPTON CO SCHOOL DISTRICT	126521	875519, 879496	0	0	0	0	0	0	4	4		
BEDFORD COUNTY SCHOOL DISTRICT	126634	879443	0	0	0	0	0	25	0	25		
HENRY COUNTY SCHOOL DISTRICT	126576	878657, 878688, 885617, 885778	4	0	0	5	0	10	0	19		
MONTGOMERY CO SCHOOL DISTRICT	126575	885057	0	3	0	0	0	0	22	25		
MECKLENBURG COUNTY SCHOOL DIST	126563	918334	0	0	0	0	0	0	10	10		
HALIFAX COUNTY SCHOOL DISTRICT	126641	895984	0	0	0	0	0	0	11	11		
WESTMORELAND CO SCHOOL DIST	126448	904435	0	0	0	0	0	5	0	5		
PETERSBURG CITY SCHOOL DIST	126542	908922, 924100, 931324	0	0	0	3	0	7	1	11		
TAZEWELL COUNTY SCHOOL DIST	126648	903731	0	0	0	1	0	10	0	11		
ROCKINGHAM COUNTY PUBLIC SCHOOLS	126472	903188	0	0	0	0	15	6	5	26		
PATRICK COUNTY SCHOOL DISTRICT	126591	883959	0	1	0	0	0	0	7	8		
ALBEMARLE COUNTY SCHOOL DIST	126474	919810	0	0	0	0	0	0	28	28		
FAUQUIER COUNTY SCHOOL DIST	126350	(4 buildings reported. Form 471 Block 4 shows	0	0	0	0	0	4	0	4	Note 1	
NEWPORT NEWS PUBLIC SCHOOLS	126530	885068, 885593, 889238, 889263, 889652, 908912	0	0	0	0	0	0	1	1	Note 1	
CAROLINE COUNTY SCHOOL DIST	126440	903665, 903894, 904151	0	0	0	0	0	0	10	10		
SPOTSYLVANIA CO SCHOOL DIST	126449	878714, 882471, 882732, 888606, 892732, 892790, 895654, 925371, 925679, 926833, 930249	0	0	0	0	0	0	31	31		
YORK COUNTY SCHOOL DIVISION	126537	901329	0	0	0	0	0	18	3	21		
ACCOMACK COUNTY SCHOOL DIST	126516	896995	0	1	1	0	0	13	0	15		
NELSON CO SCHOOL DISTRICT	126480	921035, 930746, 930872, 930945	0	1	0	0	0	5	0	6		
ISLE OF WIGHT COUNTY SCH DIST	126520	886055	0	0	0	0	0	0	12	12		
BUCHANAN COUNTY SCHOOL DIST	126645	905723	0	2	10	0	0	0	0	12		
SCOTT COUNTY PUBLIC SCHOOLS	126597	899690	0	0	0	2	0	16	0	18		
AMHERST COUNTY PUBLIC SCHOOL DIVISION	126632	895952	0	0	0	12	0	0	0	12		
CULPEPER COUNTY SCHOOL DIST	126463	879479	0	0	0	0	0	11	0	11		
WINCHESTER PUBLIC SCHOOLS	126455	902258, 902451, 902501, 902594, 902622, 903800	0	0	0	0	0	0	7	7		

DISTRICT NAME	BEN	FORM 471	NUMBER OF BUILDINGS CONNECTED AT SPECIFIED BANDWIDTH (FORM 471 BLOCK 2)							Total Buildings Reported	NOTES
			200 kbps - 1.5 Mbps	1.5 Mbps- 3 Mbps	3 Mbps- 10 Mbps	10 Mbps- 25 Mbps	25 Mbps- 50 Mbps	50 Mbps- 100 Mbps	Greater than 100 Mbps		
SHENANDOAH COUNTY SCHOOL DIST	126461	903466, 903290, 904387, 904434, 911180, 924199	0	0	0	0	0	1	0	1	Note 1
WASHINGTON COUNTY VIRGINIA SCHOOL DISTRICT	126595	882280	0	0	0	0	0	0	16	16	
PITTSYLVANIA COUNTY SCH DIST	126636	882280, 912873, 924030	0	0	1	2	6	14	0	23	
BRUNSWICK COUNTY SCHOOL DIST	126556	901141, 901921, 901973, 902269, 90263, 902334, 905875, 909221	1	0	0	0	0	9	0	10	
RUSSELL COUNTY PUBLIC SCHOOLS	126599	891909, 893592, 893709, 893822, 894172	1	0	0	13	0	0	0	14	
LEE COUNTY PUBLIC SCHOOLS	126598	882878	0	0	0	0	0	0	12	12	
SMYTH COUNTY SCHOOL DISTRICT	126612	888594, 903888, 910586, 910719, 912393, 915400	0	0	1	11	0	5	0	17	
VIRGINIA BEACH CITY SCH DIST	126526	880949, 903721	0	0	0	0	1	0	92	93	
GLOUCESTER COUNTY SCHOOL DIST	126493	894723, 894981, 895025, 895078	0	0	0	0	0	13	0	13	
PULASKI COUNTY SCHOOL DISTRICT	126605	928022	0	0	0	0	1	0	0	1	Note 1
HOPEWELL CITY SCHOOL DISTRICT	126554	918730	0	0	0	0	0	0	6	6	
CHARLOTTE COUNTY SCHOOL DIST	126566	899971	0	0	0	0	0	0	7	7	
MANASSAS CITY SCHOOL DISTRICT	126345	886540, 928234	0	0	0	0	0	14	0	14	
CHARLOTTESVILLE CITY SCH DIST	126476	886002, 886048, 886102, 886114, 903501, 903904, 904349	0	0	0	6	0	2	1	9	
LYNCHBURG CITY SCHOOL DISTRICT	126630	897665	0	0	0	0	0	0	20	20	
WYTHE COUNTY SCHOOL DISTRICT	126614	903882	0	0	1	0	0	0	9	10	
GRAYSON CO SCHOOL DISTRICT	126611	879485	0	0	0	0	0	7	0	7	
HANOVER COUNTY PUBLIC SCHOOLS	126488	892870, 892509, 926146, 925649, 925434, 929956	0	0	0	0	0	0	27	27	
PAGE COUNTY SCHOOL DISTRICT	126473	883513, 907957	0	1	1	0	0	10	0	12	
GREENSVILLE COUNTY SCHOOL DIST	126551	879486	0	0	0	0	0	0	6	6	
LANCASTER COUNTY SCHOOL DIST	126444	879491	0	0	0	0	0	7	0	7	
CARROLL COUNTY SCHOOL DISTRICT	126609	896596	0	0	0	0	1	12	1	14	
DINWIDDIE COUNTY SCHOOL DIST	126550	926121	0	0	0	0	0	9	0	9	
STAUNTON CITY SCHOOL DISTRICT	126616	922682	0	0	0	0	0	0	1	1	Note 1
POWHATAN COUNTY SCHOOL DIST	126503	898682	0	0	0	0	0	7	0	7	
FREDERICKSBURG CITY SCH DIST	126439	879465, 927147	0	0	0	0	0	0	6	6	
BOTETOURT COUNTY SCHOOL DIST	126577	879446	0	0	0	0	0	0	12	12	
SOUTHAMPTON COUNTY SCHOOL DIST	126548	915537	0	1	0	1	0	7	0	9	
NORTHUMBERLAND SCHOOL DISTRICT	126442	902227	0	0	0	0	0	4	4	8	
ESSEX COUNTY SCHOOL DISTRICT	126451	893970	0	0	0	0	0	0	4	4	
DICKENSON COUNTY SCHOOL DIST	126596	899959, 901511, 901525	0	0	0	0	7	0	1	8	
RICHMOND COUNTY SCHOOL DIST	126452	879529	0	0	0	0	0	5	0	5	
ALLEGHANY COUNTY SCHOOLS	126620	911228	0	1	0	6	0	2	0	9	
GILES COUNTY SCHOOL DISTRICT	126584	896075	0	0	0	6	0	2	0	8	
BRISTOL CITY SCHOOL DISTRICT	126592	913499, 913832, 922089	0	0	0	7	0	0	0	7	
WARREN COUNTY SCHOOL DISTRICT	126458	906755	0	0	0	0	0	0	15	15	
NOTTOWAY COUNTY SCHOOL DIST	126568	896247	0	0	0	0	0	0	7	7	
KING WILLIAM SCHOOL DISTRICT	126498	922014	0	0	0	2	4	0	0	6	
ROCKBRIDGE COUNTY SCH DISTRICT	126625	888580, 918763, 919891, 900924, 910510, 910689, 910983, 906918, 906913, 918756	0	0	4	2	1	0	0	7	
SUSSEX COUNTY SCHOOL DISTRICT	126560	918756	0	0	0	0	0	0	1	1	
ORANGE COUNTY SCHOOLS	126481	881173	0	0	2	3	4	0	0	9	
WAYNESBORO CITY SCHOOL DIST	126485	912554	0	0	0	0	0	0	7	7	
KING AND QUEEN COUNTY SCH. DIV	126497	900371	0	2	0	1	0	0	0	3	
PRINCE GEORGE COUNTY SCH DIST	126558	913522, 913577, 921916	0	0	3	5	0	0	2	10	
KING GEORGE COUNTY SCHOOL DIST	126445	879490, 932052	0	0	0	0	0	7	0	7	

DISTRICT NAME	BEN	FORM 471	NUMBER OF BUILDINGS CONNECTED AT SPECIFIED BANDWIDTH (FORM 471 BLOCK 2)							Total Buildings Reported	NOTES
			200 kbps - 1.5 Mbps	1.5 Mbps- 3 Mbps	3 Mbps- 10 Mbps	10 Mbps- 25 Mbps	25 Mbps- 50 Mbps	50 Mbps- 100 Mbps	Greater than 100 Mbps		
APPOMATTOX COUNTY SCHOOL DIST	126633	901661	0	0	0	0	0	1	8	9	
BUCKINGHAM COUNTY PUBLIC SCHOOLS	126564	888815	0	0	0	0	0	8	0	8	
FRANKLIN CITY SCHOOL DISTRICT	126552	879463	0	0	0	0	0	4	0	4	
MARTINSVILLE SCHOOL DISTRICT	126580	879549	0	0	0	0	0	0	6	6	
HARRISONBURG CITY SCH DISTRICT	126469	893137	0	0	0	0	0	6	3	9	
AMELIA COUNTY SCHOOL DISTRICT	126487	897984	0	0	0	0	0	0	5	5	
GOOCHLAND COUNTY PUBLIC SCHLS	126494	902353	0	0	0	1	0	5	0	6	
FLUVANNA COUNTY SCHOOL DIST	126483	899677	0	0	0	0	0	0	7	7	
COLONIAL HEIGHTS PUB SCH DIST	126547	921214	0	0	0	0	0	6	0	6	
PRINCE EDWARD CO PUB SCH DIST	126561	879525	0	0	0	0	0	4	0	4	
SUFFOLK CITY SCHOOL DISTRICT	126524	885126	0	0	0	0	0	0	20	20	
FREDERICK COUNTY SCHOOL DIST	126454	900943	0	0	0	0	0	0	23	23	
WEST POINT PUBLIC SCHOOLS	126506	924726	0	0	1	0	3	0	0	4	
FLOYD COUNTY SCHOOL DIVISION	126578	927310	0	0	0	0	6	0	0	6	
SURRY COUNTY SCHOOL DISTRICT	126559	898105, 898360, 898396, 927944	1	0	0	0	3	0	0	4	
MANASSAS PARK SCHOOL DISTRICT	126346	900295	0	0	0	4	0	0	0	4	
RADFORD CITY SCHOOLS	228641	879500	0	0	0	0	0	5	0	5	
NEW KENT COUNTY SCHOOLS	126502	879494	0	0	0	0	0	6	0	6	
COLONIAL BEACH SCHOOL DISTRICT	126441	884849	0	0	0	0	0	0	3	3	
MIDDLESEX COUNTY SCHOOL DIST	126504	910260, 910904, 925404	0	0	0	0	0	0	5	5	
BUENA VISTA CITY SCHOOLS	126617	894226	0	1	0	1	2	0	0	4	
LUNENBURG COUNTY SCHOOL DIST	126569	894942	0	0	0	4	0	1	0	5	
CHARLES CITY CO SCHOOL DIST	126489	909651, 911000, 915312	0	0	0	0	0	3	0	3	
NORTON CITY SCHOOL DISTRICT	126601	912893, 912843, 912971, 913053, 916879, 916861	0	0	1	2	0	0	0	3	
FALLS CHURCH CITY SCH DISTRICT	126426	915341, 916079, 916664, 918441, 918489, 918613	0	0	0	1	0	5	0	6	
CLARKE COUNTY SCHOOL DISTRICT	126457	879477	0	1	0	0	0	8	0	9	
SALEM CITY SCHOOL DISTRICT	126590	879531	0	0	0	0	6	0	0	6	
POQUOSON CITY SCHOOLS	126532	879522	0	0	0	0	0	5	0	5	
COVINGTON CITY SCHOOL DISTRICT	126621	896528	0	2	0	1	0	1	0	4	
CRAIG COUNTY PUBLIC SCHOOLS	126582	905144, 906081, 906188, 911520	0	0	2	2	0	0	0	4	
HIGHLAND COUNTY SCHOOL DIST	126626	879550	0	2	0	1	0	0	0	3	
GALAX CITY SCHOOL DISTRICT	126608	878690, 929270	0	0	0	0	0	5	0	5	
RAPPAHANNOCK CO SCHOOL DIST	126468	916263	0	0	0	3	0	0	0	3	
BATH COUNTY PUBLIC SCHOOL DIST	126627	931463	0	0	3	0	0	0	0	3	
LEXINGTON CITY SCHOOL DISTRICT	126623	883832	0	0	0	0	0	3	0	3	
MADISON COUNTY SCHOOL DISTRICT	126466	899749, 919009	0	0	0	1	5	0	0	6	
STAFFORD COUNTY PUBLIC SCHOOLS	126450	856844	0	0	0	0	0	0	36	36	Note 2
GREENE COUNTY SCHOOL DISTRICT	126484	887576, 900407	<i>not included in totals below</i>								Note 3
WISE COUNTY SCHOOL BOARD	126602	928634	<i>not included in totals below</i>								Note 3
MATHEWS COUNTY SCHOOL DISTRICT	126499	918398, 920030, 920141, 920270, 920458, 920474, 920516, 922596	<i>not included in totals below</i>								Note 3
BLAND COUNTY SCHOOL BOARD	126606	931787	<i>not included in totals below</i>								Note 3
CUMBERLAND COUNTY PUBLIC SCHOOL DISTRICT	126490	909568	<i>not included in totals below</i>								Note 3
WILLIAMSBURG JAMES CITY COUNTY PUBLIC SCHOOLS	126507	923654, 923746	<i>not included in totals below</i>								Note 3
<b>TOTAL REPORTED BUILDINGS</b>			7	19	34	119	136	872	844	2,031	
<b>DISTRIBUTION OF REPORTED BUILDINGS</b>			0.3%	0.9%	1.7%	5.9%	6.7%	42.9%	41.6%		

**NOTES FOR VIRGINIA CONNECTIVITY DATA**

**NOTE 1: The number of buildings for which connectivity data is reported on the district's Form 471 Block 2 is significantly less than the number of schools and administrative entities reported on the district's Form 471 Block 4. For those districts, additional sources of connectivity data are provided below.**

LOUDOUN COUNTY SCHOOL DISTRICT (4 buildings reported in Block 2. Block 4 lists 90 schools and administrative entities.)	"The new Technology Plan calls for upgrading elementary and middle school Internet access from 10 to 100 mbps and high school from 100 mbps to 1 gbps so as to provide enough bandwidth for all teachers' and students' devices ..." <a href="http://www.lcps.org/cms/lib4/VA01000195/Centricity/Domain/1/LCPS%20Tech%20Plan%20Whitepaper.pdf">http://www.lcps.org/cms/lib4/VA01000195/Centricity/Domain/1/LCPS%20Tech%20Plan%20Whitepaper.pdf</a> , page 2.
FAUQUIER COUNTY PUBLIC SCHOOLS (4 buildings reported in Block 2. Block 4 lists 25 schools and administrative entities.)	
NEWPORT NEWS PUBLIC SCHOOLS (1 building reported in Block 2. Block 4 lists 62 schools and administrative entities.)	"All of its school and administrative sites are connected by a NNPS-owned, high speed, high capacity, fiber optic network." <a href="http://sbo.nn.k12.va.us/techplan/executivesummary.html">http://sbo.nn.k12.va.us/techplan/executivesummary.html</a>
SHENANDOAH COUNTY SCHOOL DIST (1 building reported in Block 2. Block 4 lists 10 schools and administrative entities.)	"Fiber and a one Gbps Ethernet connection have been implemented in each school." <a href="http://www.shenandoah.k12.va.us/UserFiles/Servers/Server_3199882/File/Technology%20Dept/scpstechplan20112016.pdf">http://www.shenandoah.k12.va.us/UserFiles/Servers/Server_3199882/File/Technology%20Dept/scpstechplan20112016.pdf</a> , page 5
PULASKI COUNTY SCHOOL DIST (1 building reported in Block 2. Block 4 lists 10 schools and administrative entities.)	
STAUNTON CITY SCHOOL DIST (1 building reported in Block 2. Block 4 lists 9 schools and administrative entities.)	"All schools and educational buildings will continue to be connected through fiber links that provide high-speed connectivity to each other and to shared internet access." <a href="http://staunton.k12.va.us/cms/lib03/VA01000591/Centricity/Domain/23/SCS%20Educational%20Technology%20Plan%202010-">http://staunton.k12.va.us/cms/lib03/VA01000591/Centricity/Domain/23/SCS%20Educational%20Technology%20Plan%202010-</a>

**NOTE 2: Stafford County Public Schools did not file a 2013 Form 471. Building connectivity data is from Stafford's 2012 Form 471.**

**NOTE 3: Reporting issues. The number of buildings for which connectivity data is reported on the district's Form 471 is significantly greater than the number of schools and administrative entities reported on the district's Form 471 Block 4.**

District	BEN	Form 471	Number of Buildings Served at Specified Speeds							Total Buildings Reported	# of Entities Reported on Form 471 Block 4
			200 kbps - 1.5 Mbps	1.5 Mbps - 3 Mbps	3 Mbps - 10 Mbps	10 Mbps - 25 Mbps	25 Mbps - 50 Mbps	50 Mbps - 100 Mbps	Greater than 100 Mbps		
GREENE COUNTY SCHOOL DISTRICT	126484	887576, 900407	0	0	0	0	0	1400	0	1400	6
WISE COUNTY SCHOOL BOARD	126602	928634	0	0	0	12	0	30	3	45	15
MATHEWS COUNTY SCHOOL DISTRICT	126499	918398, 920030, 920141, 920270, 920458, 920474, 920516, 922596	5	5	5	0	0	5	5	25	5
BLAND COUNTY SCHOOL BOARD	126606	931787	0	0	0	13	0	0	0	13	4
CUMBERLAND COUNTY PUBLIC SCHOOL DISTRICT	126490	909568	0	0	0	0	0	0	6	6	2
WILLIAMSBURG JAMES CITY COUNTY PUBLIC SCHOOLS	126507	923654, 923746	0	0	0	0	0	17	17	34	17

## MARYLAND PUBLIC SCHOOLS CONNECTIVITY DATA

SCHOOL DISTRICT	BEN	FORM 471	NUMBER OF BUILDINGS CONNECTED AT SPECIFIED BANDWIDTH (FORM 471 BLOCK 2)								Notes
			200 kbps - 1.5 Mbps	1.5 Mbps- 3 Mbps	3 Mbps- 10 Mbps	10 Mbps- 25 Mbps	25 Mbps- 50 Mbps	50 Mbps- 100 Mbps	Greater than 100 Mbps	Total Buildings Reported	
BALTIMORE CITY SCHOOL DISTRICT	126376	914901, 923626	0	0	0	0	0	194	3	197	
PRINCE GEORGE'S COUNTY SCHOOLS	126359	884177	0	7	0	10	0	0	212	229	
BALTIMORE COUNTY SCHOOL DIST	126381	878783, 878785, 890569, 887749	0	0	14	0	0	0	212	226	
MONTGOMERY COUNTY SCHOOL DIST	126360	916911	0	0	0	0	0	238	0	238	
ANNE ARUNDEL COUNTY PUBLIC SCHOOLS	126392	884157	2	0	0	113	0	0	67	182	
HOWARD CO. PUBLIC SCHOOL SYSTEM	126366	884173	1	0	0	0	0	38	42	81	
WASHINGTON COUNTY SCHOOL DIST	126412	884004	0	2	0	0	0	0	45	47	
HARFORD COUNTY SCHOOL DISTRICT	126364	878285, 878538, 878959, 880214, 878380, 884052	0	0	0	15	23	5	1	44	
FREDERICK COUNTY PUBLIC SCHOOL DISTRICT	126408	883554	0	0	0	0	0	0	70	70	
ALLEGANY COUNTY SCHOOL DIST	126394	917156	0	0	0	1	4	20	2	27	
DORCHESTER CO SCHOOL DISTRICT	126400	878462, 885060	0	1	0	0	0	0	15	16	
CHARLES COUNTY SCHOOL DISTRICT	126353	883504	0	0	0	0	0	0	42	42	
WORCESTER COUNTY SCHOOL DIST	126416	884010	0	0	0	0	0	0	0	0	NOTE 1
TALBOT COUNTY PUBLIC SCH DIST	126398	878875	0	0	1	0	0	0	9	10	
WICOMICO COUNTY SCHOOL DISTRICT	126413	893282, 893312, 893320, 925088	0	0	0	0	0	0	27	27	
CAROLINE COUNTY PUBLIC SCHOOLS	126407	878274, 885897	0	0	0	0	0	0	11	11	
GARRETT COUNTY SCHOOL DISTRICT	126396	914455, 914632, 916394	0	2	9	4	0	1	0	16	
SOMERSET COUNTY SCHOOL DIST	126418	902195	0	0	0	10	0	0	0	10	
CARROLL COUNTY SCHOOL DISTRICT	126369	922124	0	0	0	2	1	0	39	42	
CALVERT COUNTY PUBLIC SCHOOLS	126358	928577	0	1	0	0	26	0	0	27	
CECIL COUNTY PUBLIC SCHOOL DISTRICT	126421	896883	0	0	0	20	9	2	0	31	
KENT COUNTY PUBLIC SCHOOL DIST	126405	878662	0	0	0	0	0	0	8	8	
QUEEN ANNE'S COUNTY BOARD OF ED.	126403	883210, 927975	0	0	0	0	0	0	15	15	
ST MARY'S COUNTY PUBLIC SCHOOLS	126355	893915	0	0	13	3	0	15	0	31	
<b>TOTAL REPORTED BUILDINGS</b>			<b>3</b>	<b>13</b>	<b>37</b>	<b>178</b>	<b>63</b>	<b>513</b>	<b>820</b>	<b>1,627</b>	
<b>DISTRIBUTION OF REPORTED BUILDINGS</b>			<b>0.2%</b>	<b>0.8%</b>	<b>2.3%</b>	<b>10.9%</b>	<b>3.9%</b>	<b>31.5%</b>	<b>50.4%</b>		

**NOTE 1:** The number of buildings for which connectivity data is reported on the district's Form 471 Block 2 is significantly less than the number of schools and administrative entities reported on the district's Form 471 Block 4. (Zero buildings reported in Block 2. Block 4 lists 15 schools and administrative entities.)