

Before the
Federal Communications Commission

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

Submitted by:
The Software & Information Industry Association (SIIA)

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Table of Contents

	<u>Page</u>
I. Introduction	1
II. Summary of SIIA Recommendations	2
III. Specific SIIA Recommendations	3
1. Robust Student Connectivity	3
2. Affordable Access	4
3. Timely Modernization and Enhancement	5
4. Advanced Eligible Services	6
5. Access Goals and Flexibility	7
6. Educational Goals and Flexibility	7
7. Anytime, Anywhere Learning	8
8. Program Efficiencies	8
9. Program Data	9
10. Gift Rule	9

I. Introduction

On behalf of the Software & Information Industry Association (SIIA), I write in response to the Federal Communications Commission’s (FCC) notice seeking public comments on “Modernizing the E-rate Program for Schools and Libraries” (WC Docket No. 13-1840). We commend the FCC and Commissioners Clyburn, Pai and Rosenworcel for recognizing the important opportunity to review, modernize and enhance the E-rate program. We appreciate this opportunity to comment on these important issues.

The Software & Information Industry Association (SIIA) is the principal trade group of the software and digital content industry, representing more than 700 developers, publishers and other high-tech companies. Many SIIA members develop and deliver digital content, software applications and related online services, and therefore rely on robust and reliable user Internet connectivity necessary to access those products and services. This includes the many SIIA members partnering with public and private schools, libraries, and other educational institutions to provide educational software, digital curriculum,

online instruction and related technologies. For further information about SIIA, visit www.siiia.net/education.

SIIA views robust Internet access through high-speed broadband connectivity as critical to a 21st century education system, and to providing educators and students with access to technology-based tools and resources that are mission critical for teaching and learning in today's digital age. Learning technologies are needed to increase educational opportunities, improve student engagement and enhance the personalization of learning to meet the needs of an ever more diverse student body. These tools and resources include assessment, data systems, distance learning, digital content, instructional software, communication and collaboration tools, professional development communities, and other software applications. These teaching and learning resources are increasingly hosted and delivered online.

Our K-12 education system has made important strides toward creating a technology-rich teaching and learning environment in large part due to the critical E-rate program. The E-rate has effectively served its first goal of ensuring nearly all schools and libraries – including especially those serving high-poverty communities – are connected. However, educational and technological opportunities have evolved, and much progress remains to be made to meet the digital learning needs of all students and therefore to maintain the nation's educational and economic competitiveness in the world. The E-rate's Congressionally authorized mission is an evolving one – “to enhance . . . access to advanced telecommunications and information services.” Fulfilling this Congressional intent today requires support for more robust technology infrastructure and access. Basic school connectivity is no longer sufficient. SIIA supports the goals of President Obama's ConnectED initiative to connect virtually all of our schools (and their students) and libraries to next-generation high-capacity broadband and high-capacity wireless connectivity within five years

E-rate's legislative mandate also calls for providing “affordable access” with a focus on the most economically-disadvantaged communities and students. Yet, E-Rate funding has been relatively flat at \$2.25 billion since its creation in 1996, while the need for, and the demand for connectivity has grown dramatically as evidenced by the \$4.9 billion in applications sought for this funding year by schools and libraries. SIIA's recently released 2013 Vision K20 (www.siiia.net/visionk20) educator survey results found that, while their goal for access to robust bandwidth is 3.98 (on a 1-4 scale), educators rate their actual access as only 3.14. Similarly, their need for ubiquitous, wireless access to resources and services ranks as a 3.89, but their actual access is only a 2.64. SIIA expects demand and need – especially for our highest poverty communities – will continue to grow into the future as digital learning expands from supplemental to fundamental.

II. Summary of SIIA Recommendations:

SIIA supports the Commission's proposed rulemaking goals of: “(1) ensuring that schools and libraries have affordable access to 21st Century broadband that supports digital learning; (2) maximizing the cost-effectiveness of E-rate funds; and (3) streamlining the administration of the E-rate program.” SIIA also supports the specific proposed goal to “focus E-rate funds on supporting high-capacity broadband to and within schools and libraries.”

To address those goals, SIIA makes the following recommendations:

1. **Robust Student Connectivity.** Update the E-rate's implicit goal from basic school connectivity to robust student connectivity, focusing on advanced Internet bandwidth to the point of use (i.e., student and device) and not simply to the school building.

2. **Affordable Access.** Exercise the FCC’s authority to increase E-rate funding as needed and appropriate to meet evolving and expanding demand, as authorized by Congress under the Telecommunications Act that created the E-rate program.
3. **Timely Modernization and Enhancement.** Move swiftly to modernize and enhance the E-rate program in order to meet urgent demands, and if necessary, increase funding under the existing rules *prior* to program changes in order to expedite the increase of resources to the field.
4. **Advanced Eligible Services.** Update the priorities and eligible services to ensure the program continues to meet the law’s emphasis on enhancing “access to *advanced* telecommunications and information services.” [emphasis added]
5. **Access Goals and Flexibility.** Center E-rate program accountability around the broad goal of providing high-speed broadband access to all students, while also providing the flexibility for eligible schools and libraries to determine their precise goals and their additional goals.
6. **Educational Goals and Flexibility.** Provide flexibility to determine and measure E-rate goals and impact, while not measuring E-rate effectiveness by student performance outcomes or similar learning indicators.
7. **Anytime, Anywhere Learning.** Ensure that schools and libraries continue to be the primary beneficiary of E-rate funding, but provide flexibility to leverage that funding to meet the connected learning needs of students outside of the school building and school hours.
8. **Program Efficiencies.** Continue to streamline the E-rate application and operational procedures, while recognizing the importance of program accountability.
9. **Program Data.** Continue to enhance program data access to support program accountability and enhanced cost effectiveness, while recognizing that not all data should be made publicly available.
10. **Gift Rule.** Modify and clarify E-rate gift rules to avoid unintended consequences that limit public-private partnerships and educator professional learning opportunities.

III. Specific SIIA Recommendations:

1. **Robust Student Connectivity.** Update the E-rate’s implicit goal from basic school connectivity to robust student connectivity, focusing on advanced Internet bandwidth to the point of use (i.e., student and device) and not simply to the school building.
 - SIIA agrees with the Commission’s findings in Paragraph 5 that, “There is strong evidence and growing consensus that E-rate needs to sharpen its focus and provide schools and libraries with high-capacity broadband connections.” SIIA supports the Commission’s recommendation in Paragraph 17 that, “The first goal of the E-rate program . . . is to ensure that schools and libraries have affordable access to 21st Century broadband that supports digital learning.”
 - Section 254(h) of the Telecommunications Act requires the Commission to enhance access to “advanced” services, and high-capacity broadband connections are core to that definition today, and, in fact, have been so dating back a good number of years. Technology-based services, as in other industries, have been increasingly shifted to a hosted or cloud model whereby content, software applications, data and services are managed off-campus from a central provider rather than installed on devices or local networks. This model provides enhanced user functionality, timeliness, and cost-effectiveness. The requirement is robust connectivity.
 - As a result of inadequate bandwidth in schools, classrooms and other learning environments, SIIA member providers of applications and services are too often forced to compensate by modifying: (i) their instructional model to one based on shared and limited access; and/or (ii)

their technical design through reduced use of multi-media and adaptive, interactive applications. These remedies may reduce educational impact. In many cases, school officials restrict learning resources that require high-speed bandwidth such as video streaming. In a 2011 school survey by Follett, 50% of respondents cited technology/bandwidth issues as the biggest obstacles to more widespread utilization of streaming media solutions, while 82% cited budget restraints. Increased educational impact requires increased technological access.

- SIIA generally agrees with the goals put forward by SETDA in consultation with many SIIA members and other education and technology leaders as described by the Commission in Paragraphs 23 and 24. These are important starting points for the sector, and for the E-rate program, to recognize the minimum institutional capacities needed to support students and educators.
 - Connectivity is required not simply to the school, but to the student and device. This requires a focus on internal network connections that support students at the time and place of learning. The traditional model of hardwired computer labs is insufficient to address best practices for providing timely and flexible digital learning access. While the Commission should provide flexibility for local needs and alternative technologies, SIIA answers affirmatively to the Commission's question in Paragraph 27 about whether "all schools should have internal wireless networks capable of supporting one-to-one device initiatives, and whether libraries should have comparable wireless connectivity." SIIA believes it is appropriate to, as the Commission proposes, "define connectivity in Mbps of wireless capacity available per-student in classrooms, school libraries, and other areas of schools."
 - SIIA agrees with the Commission's finding in Paragraph 28 that, "Many of the applications that enable digital learning require not just high-capacity connections, but also high-quality connections that have associated latency, jitter and packet loss requirements." Inadequate, inconsistent and otherwise unreliable connectivity is very disruptive in a school setting where instructional time is at a premium and the risk of lost testing or other student performance data is unacceptable. SIIA therefore agrees with the need to account for the quality and reliability of access.
2. Affordable Access. Exercise the FCC's authority as needed to increase funding for the E-rate program to meet evolving and expanding demand as authorized by Congress under the Telecommunications Act that created the E-rate program.
- SIIA members find most school districts, schools and classrooms without sufficient broadband connectivity to support robust implementation of their online products and services including content and courseware, data applications, and online assessment. As noted above, SIIA's survey of educators identified a significant gap between broadband need and actual access. While their goal for access to robust bandwidth is 3.98 (on a 1-4 scale), educators rated their actual access as only 3.14. Similarly, their need for ubiquitous, wireless access to resources and services ranks as a 3.89, but their actual access is only a 2.64.
 - Section 254(h) of the Telecommunications Act requires the Commission "to ensure affordable access." The E-rate's goals therefore highlight equity of access. The Act authorizes the Commission to identify and implement the steps necessary on an ongoing basis to accomplish that legislative goal. Yet, the E-rate cap has remained flat at \$2.25 billion (plus the recent inflationary adjustment) since the program's inception in 1996 even as the number of students and their use of technology has increased dramatically.

- In response to the Commission’s questioning in Paragraph 172: While it is possible that reprioritizing funds, adjusting support levels and other proposals may reduce costs and focus resources on priority broadband needs, SIIA does not believe that these changes will save or preserve enough funding to meet school needs moving forward, including the needs as articulated by the proposed connectivity goals. Evidence for this ongoing, significant shortfall include the fact that: (1) E-rate applications continually double available funding; and (2) E-rate funding for eligible services proposed for phasing out amount to a small share of the funding gap.
 - In addition current student device access and demand for connectivity is only a fraction of expected use moving forward. For example: the student:device ratio remains far inferior to the 1:1 recommended and expected; most assessments are still delivered via paper and pencil while most states are shifting to online assessments by 2015-2016 school year; and most instructional resources are still in print format while educators are shifting to digital resources to enable individualized learning, to prepare students for online assessments, and to support 21st century skills such as digital literacy and virtual collaboration. SIIA’s Vision K20 survey finds that student access to courseware and technology-based curriculum is only 2.26 (on a 1-4 scale), while the average educator is seeking a 3.76 level of access.
 - In Paragraph 173, the Commission asks “whether a temporary increase in the E-rate cap is necessary to reach our goals and ensure high-capacity broadband connectivity to and within schools?” SIIA believes the more appropriate questions is: “What funding will be necessary in the short and long-terms to meet evolving needs?” Increased funding is clearly needed now to meet demand. At the same time, many E-rate eligible services are ongoing costs, while network infrastructure to and within the school will require ongoing investment to ensure schools and libraries can keep pace with evolving technologies. In Paragraph 174, the Commission asks, “Should we instead consider a more permanent change to the cap to achieve the goals of a modern E-rate program?” SIIA believes that, while a temporary increase might be needed to supplement funding, ongoing needs and demands will continue to exceed currently available funding, suggesting a permanent funding increase is also needed.
3. Timely Modernization and Enhancement. Move swiftly to modernize and enhance the E-rate program in order to meet urgent demands, and if necessary, increase funding under the existing rules *prior* to program changes in order to expedite the increase of resources to the field.

SIIA supports the Commission’s efforts to provide adequate opportunity for public comment and to act deliberately to ensure program changes are appropriate. At the same time, SIIA notes that the E-rate program funding cycle is lengthy, and SIIA is concerned that the combined time for determining and implementing program rules could be extensive. SIIA therefore recommends that the Commission act swiftly to institute program changes in order that they be in place for the 2014-2015 school year. In the absence of such timely program changes, SIIA recommends that the Commission move to increase E-rate funding in time to reach schools during the 2014-2015 school year, at least on a temporary basis, while reviewing complementary program changes. This recommendation builds on SIIA’s belief, as stated above, that program demand will continue to far exceed funding availability even if the Commission instituted its many proposed changes to reduce or redirect demand.

4. Advanced Eligible Services. Update the priorities and eligible services to ensure the program continues to meet the law’s emphasis on enhancing “access to *advanced* telecommunications and information services” [emphasis added].
- In general, SIIA supports the Commission’s proposal in Paragraph 65, for “possible updates to the list of services eligible for E-rate support and the related rules to focus funding on those services that provide high-capacity broadband to school and library buildings and those services and equipment that disseminate the high-capacity broadband within those buildings, while deprioritizing or phasing out support for services associated with legacy technologies and services that have little direct educational application.” SIIA cautions the Commission to provide some flexibility to recognize unique local needs.
 - In paragraph 85, the Commission asks: “Are there other equipment or services necessary for high-capacity broadband connections that should qualify for prioritized support? . . . Should we, for example, consider providing support for caching services or for services necessary for providing network security for schools and libraries?” SIIA agrees that funding for caching servers should be a higher priority to enable increased student access for any given broadband speed. In some cases, school officials restrict learning resources that require high-speed bandwidth such as video streaming, and caching can be an effective remedy. In fact, some schools are now requiring that model to get around their bandwidth limitations.
 - Similarly, SIIA encourages priority support for school and library Wi-Fi networks that enable student access anytime and anywhere that learning is taking place in and around the institution. In addition to enhancing access, this technology model can ultimately save costs over traditional wired internal networks that may be difficult to install and maintain.
 - In paragraph 91, the Commission notes “that flash-cuts to support in a funding year could be financially difficult for schools and libraries and therefore, throughout this section, we seek comment on phasing out support for services we remove from the ESL, rather than eliminating them immediately.” SIIA agrees that a phase out approach is generally most appropriate to allow schools and libraries to adjust their technology plans and budgets, and that the phase out period should be at least one year. In paragraphs 111 and 112, the Commission inquires about the ideas of using varied phase out periods for different services, for funding some at a lower priority, and “reducing the percentage of support . . . for those services.” SIIA recognizes the appeal of these phase out options, but cautions against creating an overly-complicated mechanism that could create confusion and inappropriately distort decisions.
 - SIIA recommends that the Commission consider the appropriate criteria in determining whether to add or remove eligible services. For example, in Paragraph 97, the Commission asks, “Should the E-rate fund be supporting services such as web hosting and email at costly monthly rates when many such services are cloud based and offered basically for free to other users?” SIIA recommends that cost should not be a primary criteria for determining service eligibility. Prices are impacted by a variety of factors including functionality and quality of service, as well as the business model through which the service is offered. Just because a service may be available for free (or for very low cost) does not mean that option best meets the needs of a school or library. Instead, schools and libraries should be provided the flexibility to purchase the most cost-effective services that best meet their needs, and should not be required to necessarily purchase the lowest cost ones or be prohibited from using E-rate funds for services such as web hosting and email simply because a free service exists.

5. Access Goals and Flexibility. Center E-rate program accountability around the broad goal of providing high-speed broadband access to all students, while also providing the flexibility for eligible schools and libraries to determine their precise goals and their additional goals.

SIIA recommends that the Commission take appropriate steps to ensure that specific E-rate connectivity goals become neither a floor nor a ceiling that artificially limits the use of E-rate funding in ways counter to unique local needs. For example, institutions already at or soon approaching the basic proposed connectivity levels should not lose future access to E-rate funds simply for going faster or further than others. Similarly, the Commission should recognize that some schools and libraries may not be willing or able to meet the E-rate's connectivity goals in a timely manner, but should receive continued support to meet their needs. In other words, national goals should not translate directly to local requirements. In Paragraph 16, the Commission notes this principle by stating: "In establishing performance goals and measures, we recognize that the E-rate program's goals and measures will likely need to be sufficiently flexible to accommodate the evolving technological needs of schools and libraries."

6. Educational Goals and Flexibility. Provide flexibility to determine and measure E-rate goals and impact, while not measuring E-rate effectiveness by student performance outcomes or similar learning indicators.

- E-rate recipients should be encouraged to identify their educational goals such as enhanced access to online learning resources and instruction. However, the Commission should not measure E-rate impact and effectiveness by student performance outcomes or similar learning indicators.
- In Paragraph 40, the Commission asks, "Is there a way to measure how success in the classroom is affected by access to E-rate funding or services supported by E-rate?" SIIA recommends that the Commission not develop or require such outcome goals and measurements. SIIA generally agrees with the concerns raised by others, as summarized by the Commission, that "because classroom performance is affected by many factors, there are no reliable conclusions to be drawn." Technological access provided by the E-rate is a means to accessing non-eligible teaching, learning and administrative resources. There are many factors in the equation, including which resources are accessed, how they are implemented, and We would not measure the student achievement efficacy of a chalkboard, a library stack or a school bus, because those are access mechanisms.
- SIIA also agrees that "educational outcomes are outside the agency's core competence," raising significant operational challenges to its potential foray into these measures.
- To the extent that educational measures are used, SIIA recommends that the Commission consider only goals and measures determined independently by a school or library, and that those goals and measures focus on educational access such as to online courses, online educational content, hosted data systems, etc. This educational access goal is more consistent with E-rate's technological access mission. While SIIA recommends that the Commission not require the setting of such goals and measures nor require the reporting of such data, it may consider allowing schools and libraries to do so for their planning and benchmarking purposes.

- In Paragraph 100, the Commission seeks comment on “whether we should make changes to the E-rate program to ensure that supported services are, at a minimum, used for the core purpose of educating students and serving library patrons.” SIIA appreciates the notion of limiting the use of funds in this way, but SIIA cautions that defining terms such as “core” and “educational purposes” can be difficult, if not impossible given the continuum of educational components and the integrated nature of schools and their technologies. For example, SIIA recommends that the Commission not try to prohibit the use of E-rate support “for services that will be used only by school and library staff, administrators, or board members,” because those individuals are ultimately using E-rate supported services to address the core purpose of serving students and patrons.
7. Anytime, Anywhere Learning. Ensure that schools and libraries continue to be the primary beneficiary of E-rate funding, but provide flexibility to leverage that funding to meet the connected learning needs of students outside of the school building and school hours.

The Commission took some such steps in its last major rulemaking to enable the use of E-Rate supported services in schools by students and community members during non-school hours, thus better leveraging the investment. The Commission might also consider allowing schools and libraries to use E-rate funds to provide and access networks available in the community, including especially wireless networks, whereby such cost-sharing might better leverage limited collective funds and technology infrastructure. Any such flexibility should continue to prioritize funding for and access from the school and library building.

8. Program Efficiencies. Continue to streamline the E-rate application and operational procedures, while recognizing the importance of program accountability.
- SIIA commends the Commission for pursuing efforts to streamline the E-rate application and operational procedures to provide more efficiency, while recognizing the importance of program transparency and accountability.
 - In Paragraph 241, the Commission proposes to “allow E-rate applicants with multi-year contracts that are no more than three years in length (including any voluntary extensions) to file a single FCC Form 471 application for the funding year in which the contract commences and go through the full review process just one time for each such multi-year contracts.” In Paragraph 242, the Commission seeks comment on a proposal to “permit multi-year commitments in the E-rate program.” SIIA supports these Commission proposals to provide applicants with the flexibility to submit multi-year applications, receive multi-year commitments, and therefore better support multi-year agreements. Multi-year initiatives will enable more effective planning, reduce administrative costs, and potentially reduce prices.
 - SIIA also supports steps to enable consortia and bulk purchasing, so long as these are not required and do not discriminate against those unable to participate.
 - SIIA recommends the Commission take steps to provide more timely vendor and school reimbursement schedules.
 - SIIA recommends that the Commission enhance the online filing system. SIIA supports the proposal outlined in Paragraph 229 to enable applicants (and vendors) to prepopulate fields with their data from previous years.

9. Program Data. Continue to enhance program data access to support program accountability and enhanced cost effectiveness, while recognizing that not all data should be made publicly available.

- Per the Commission’s proposal in Paragraph 52, SIIA recommends that the Commission adopt open meta-data formats and other technical standards needed to ensure appropriately shared information is machine-readable through commonly available and used standards, thereby enhancing data analysis to inform decisions and drive resource efficiencies.
- In Paragraph 29, the Commission seeks comment on “whether to measure school and library broadband speeds as one metric of broadband availability and affordability.” SIIA recommends that this information be collected as well as publicly reported, as outlined in Paragraph 34. SIIA recommends inclusion of bandwidth speed in Form 471, which is currently available to the public on the Schools and Libraries Division (SLD) website. We also recommend that this and related data be included in the SLD’s Data Retrieval Tool to enhance public access.

10. Gift Rule. Modify and clarify E-rate gift rules to avoid unintended consequences that limit public-private partnerships and educator professional learning opportunities.

In Paragraph 166, the Commission seeks comment on “whether there are ways that E-rate could allow schools and libraries to take greater advantage of private philanthropy while still allowing the Commission to maintain appropriate control over E-rate expenditures and to prevent improper influence over E-rate service provider selections.” SIIA agrees with the point made that E-rate gift rules can provide challenges. Many providers of E-rate eligible services provide complementary teacher training, professional development and related user supports for free or perhaps at rates below cost. Others support related third-party efforts. They take these actions to support their users, to meet their philanthropic mission, or for other reasons that are not driven by the goal of influencing the decisions of schools and libraries to use E-rate funds for their eligible services. SIIA recommends that E-rate gift rules be modified and clarified to distinguish between those provider activities intended to influence school and library purchasing decisions and those intended to directly or indirectly support users in meeting the technological and educational mission of the eligible services.

Respectfully Submitted,

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