

FIVE TIPS FOR GETTING THE MOST FROM E-RATE INVESTMENTS

Tech experts offer winning approaches for U.S. schools and community libraries to enhance and secure their broadband networks using E-rate funds.

America's efforts to improve K-12 education continues to reflect widespread belief that universal access to the internet and online digital learning platforms is an essential element for transforming teaching and learning to improve student outcomes.

Paving the way to that vision, in turn, depends on the ability of 118,000 locally run schools and library facilities, serving 50 million students across the United States, to expand the capacity, security and reliability of their broadband and network connections. And a central force driving that work is a federally financed program called E-rate.

E-rate, which began 20 years ago as a communications discount fund, and was [modernized](#) by the FCC in July 2014, has become a primary financial conduit for helping schools and libraries finance the expansion of their network infrastructure and broadband access.

Just how much schools and libraries rely on the \$3.9 billion fund was made clearer in a recent [national study](#) released by the E-rate consulting firm, Funds For Learning, that showed 85 percent of 1,016 representative E-rate applicants who said, "E-rate is vital to our organization's internet connectivity goals." And more than nine in 10 (94 percent) will continue to apply for E-rate funding in the future. The study also found that 90 percent of respondents expect to add faster internet connections over the next three years.

Most Agreed Upon Statements about the E-rate Program

94% My organization will continue to apply for funding in the future.

85% E-rate is vital to our organization's Internet connectivity goals.

77% We connect more students/patrons to the Internet because of E-rate.

76% We have faster Internet because of the E-rate program.

66% Our organization can depend on E-rate to help us.

65% FY2016 application(s) took longer than in previous years.

48% E-rate competitive bidding lowers prices for services.

34% E-rate has been simplified and streamlined the last two years.

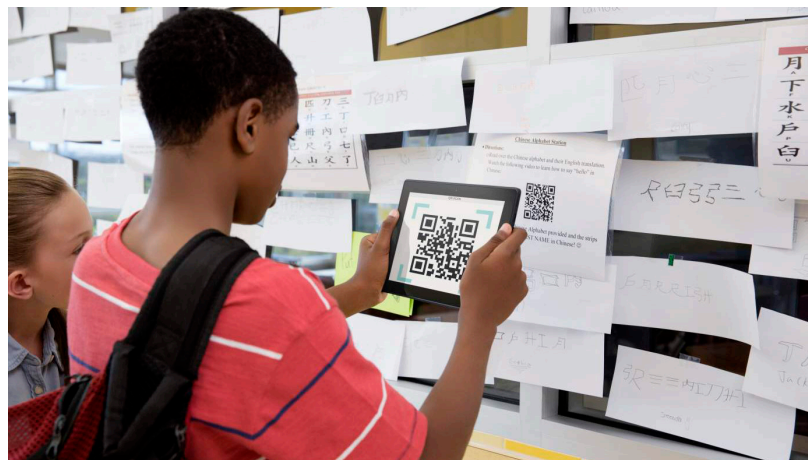
Source: Funds For Learning 2016 E-rate Trends Report.

Making the most of E-rate investments continues to be a complicated challenge, in part because of how the technology landscape is changing, say experts like Michael Shannon and Scott Grebe.

Shannon is technical sales director with Dell EMC, whose teams have worked with countless schools across the U.S. on infrastructure modernization projects aimed at enhancing student connectivity and network agility. And Grebe brings more than 20 years of high-tech project management experience to his role as senior product marketing manager for security products at SonicWall, which protects millions of networks worldwide.

Both executives say the rapid changes in networking technology – and the need to keep up with evolving security threats – are putting new demands on budget-constrained K-12 IT directors.

Here are five recommendations they offered to help school and library directors make the most of E-rate funds in building out and securing their networks:



1. Keep an open mind on how technology is evolving.

"For those in the planning stages of modernizing their network, be open-minded and explore the options," said Shannon. "Gone are the days when we had little choice in networking partners and even less choice in technology. We've seen the move from 10 gigs (gigabits per second, or GbE) to 100 gigs happen over just a few short years and wireless speeds are already hitting a gig to the device. Being able to take advantage of future technologies is huge," he said.

He noted how companies like Dell EMC have moved to open standards and pay as you grow solutions that improve customer choice. Schools similarly have a wider array of choices. "We are also proud to be leading the industry in trends like software-defined networking and open networking. The network you build today shouldn't make you worry about the future but really leave you open to embrace the future," he said.

"There are some incredible new technologies out there like cloud managed platforms and unified architecture that give you a single command line interface across the entire campus and other things like software-defined wide area networks. Giving yourself time to explore the possibilities that can make your school more agile and more future ready will ensure that you're getting the best bang for your E-rate buck," Shannon said.

2. Develop a 3-to-5 year plan.

"What's considered leading-edge today is really going to need to be replaced in a few years," cautioned Grebe.

"This is especially true in the network security space because you've got hackers out there who are really focused on developing sophisticated new ways of penetrating your network defense and stealing confidential information."

"If you think about it, they're trying to get student records, student financial information as well, with the end goal of making a profit. You want to be thinking ahead, to make sure that you're able to take advantage of new security technologies as they become available," he said.

3. Understand who and what's on your network.

"You really need to understand what's going on in your network," said Grebe. "For instance, I want to know who's on my network and what applications the students, the faculty, the staff — anyone who's on the network— what applications are they using?"

"Also if you are applying for E-rate funding and you're providing students with internet-enabled devices that they can take home, you need to ask the question, 'How are we protecting the students when they take that device off campus?'"

We all know schools need to have a content filtering solution in place to be eligible for E-rate funding – it's part of CIPA (Children's Internet Protection Act) compliance. But what processes and tools are in place to manage that today and in the future?"

4. Understand your bandwidth requirements.

A related question is knowing how much bandwidth all that activity consumes, and will likely consume in the future.

"What that does for me," said Grebe, "is it gives me information that I can go ahead and use to plan more effectively and optimize my network and ultimately deliver a better learning experience for students and teachers.

5. Keep an eye on the big picture and new options when putting together contracts.

"While an initial purchase of networking gear may seem like a great deal, the long-term cost and lock-in and complexity

will quickly eat into those savings," said Shannon. "Now you add lifetime warranty and firmware access without add-on contracts, and the costs can be huge," he said.

Shannon also recommended making it easy for vendors to respond. "Something as simple as keeping your [FCC Form] 470 open for more than the minimum 28 days can make a big difference in how many responses you'll get," he said. He also suggested not defining a vendor preference in the requirement documents, which may prevent some vendors from even trying to earn your business.

Finally, Grebe suggested schools and libraries consider taking advantage of new kinds of outsourcing services that they may not be aware of, such as SonicWall's [security-as-a-service](#). These services allow schools and libraries to outsource security "as part of the managed internal broadband services, within Category Two of the E-rate program," which permits third parties to operate, manage, and monitor eligible broadband connection components, Grebe said.

"What's nice about this model is that if you're a school – and we all know for schools and libraries that the budget is always a top concern – you don't have to pay any upfront capital expenditure to buy the hardware. Instead, you can have a partner who is going to come in and install the equipment for you, configure it for you, and manage it for you, all on a low monthly subscription rate."

"That's nice at the end of the year because you've got no big expenditure up front and you pay a predictable monthly fee," he said.

"The other nice thing is, if your school is growing and you're outpacing your firewall in terms of the number of users or devices, or there is new technologies, then you're able to upgrade that firewall to keep up. It's a good way for schools to look at funding, their equipment needs and network security without having to pay a large amount of money upfront," Grebe says.



Michael Shannon
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Look for more information from [Dell EMC](#) and [SonicWall](#) on ways to help enhance your K-12 school and library network infrastructure and security, using E-rate funds.

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