CDW·G PEOPLE WHO GET IT®

A GUIDE TO E-RATE

School leaders should follow these **best practices to plan an E-rate strategy** that works.

EXECUTIVE SUMMARY

The federal government offers $3.9 billion annually to K–12 school districts to pay for high-speed internet access, wireless networking equipment and related technology through its E-rate program.

E-rate provides schools with the bandwidth they need to take advantage of mobile computing devices and to support digital-learning classrooms with online videos, cloud-based productivity and collaboration tools, and online testing.

Recently, the government attempted to streamline and simplify the application process with a new online application portal, but it remains a challenging process with stringent deadlines and rules. Schools and districts that do everything right get a huge payoff: up to 90 percent off internet services and up to 85 percent off Wi-Fi networks and related equipment.

"It's the single largest source of educational technology funding in the country, and it enables school districts to stretch their technology budgets," says Brian Stephens, senior compliance analyst at Funds for Learning, an E-rate consulting firm.

This guide explains how E-rate works, outlines its benefits and provides best practices on how to successfully apply and get funded. It also highlights every step of the funding process, including important rules and deadlines, and details what services and technology equipment are eligible for funding.

What Is E-Rate?

The U.S. Telecommunications Act of 1996 created the E-rate program to ensure that schools and libraries, particularly those in low-income or rural areas, have affordable access to telecommunications and internet services.

Telecommunications service providers pay for E-rate, which initially dispensed $2.25 billion annually when the program launched in 1998. E-rate is based on a percentage of the providers' interstate and international telecommunications revenue. However, some service providers pass that cost on to consumers as a "universal service" or "universal connectivity" charge on their bills.

The program provides annual subsidies or discounts of 20 to 90 percent on eligible services and technology equipment. For example, a school district that qualifies for an 80 percent discount through the E-rate program will only pay the remaining 20 percent.

The discounted rates are typically based on a district's percentage of students who are eligible for no-cost or reduced-price lunches as part of the National School Lunch Program (NSLP). In some cases, rural districts receive a higher discount based on lunch program participation. The reason for the higher discount rates in rural districts harks back to E-rate's goal of ensuring connectivity everywhere, including rural areas, and the fact that it costs more to build out infrastructure in low-population areas, Stephens says.

Public K–12 schools and districts are eligible for funding. Private and religious K–12 schools are also eligible for funding provided they are nonprofit and do not have an endowment larger than $50 million.

Percentage of U.S. students who are connected to high-speed broadband[1]

New Focus on High-Speed Broadband and Wi-Fi

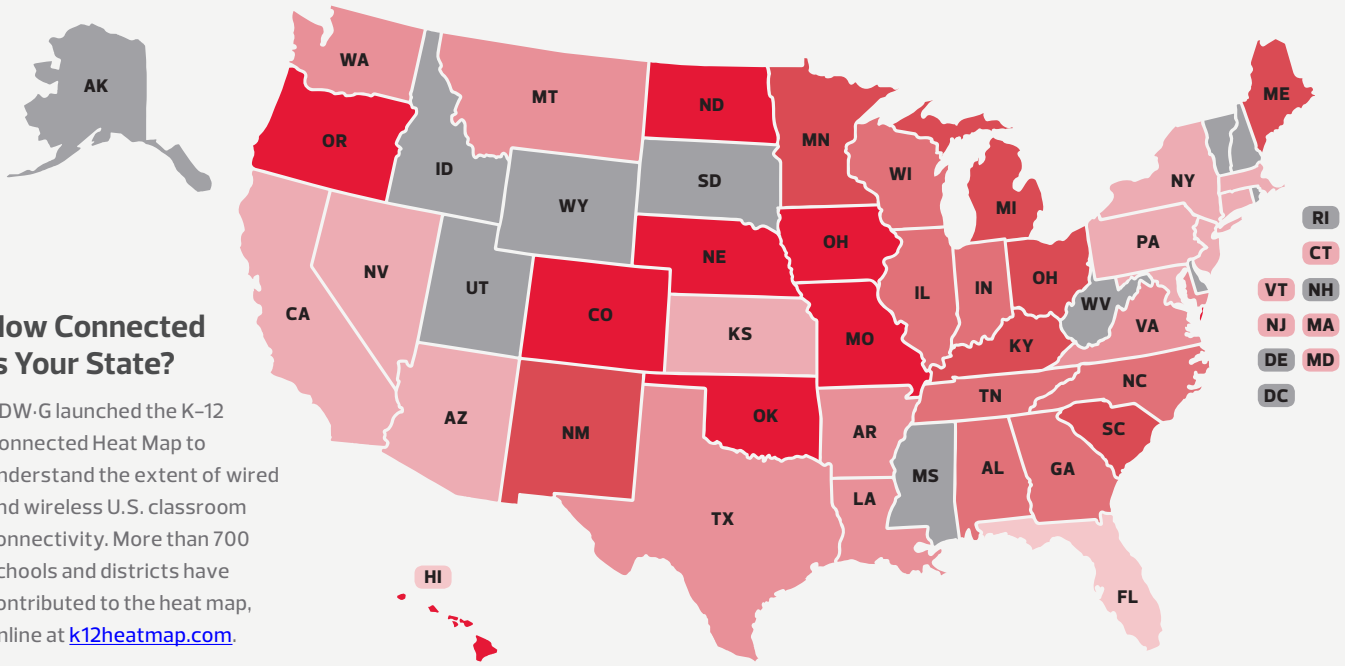
Historically, the E-rate program funded basic, long-distance and cellphone services. But in 2013 and 2014, the program reallocated all its funding for phone and internet services, which received priority. That left no money for a second internal connections funding category to pay for networking and wireless equipment.

To fix that, the Federal Communications Commission (FCC) revamped E-rate through two modernization orders in 2014 that phased out voice services and eliminated other services, such as web hosting, to focus on providing schools and districts with affordable broadband and Wi-Fi.

The FCC set goals for schools to provide bandwidth speeds of at least 100 megabits per second per 1,000 users in the short

How Connected Is Your State?

CDW·G launched the K-12 Connected Heat Map to understand the extent of wired and wireless U.S. classroom connectivity. More than 700 schools and districts have contributed to the heat map, online at k12heatmap.com.



Self-reported index based on percentage of wired and wireless connectivity, by state, in school districts nationwide

Source: [1]EducationSuperHighway, "2016 State of the States," January 2017

term, with a longer-term target of 1 gigabit per second per 1,000 users. Starting in the 2015 funding year, the FCC increased E-rate funding from $2.4 billion to $3.9 billion annually. That includes $1 billion a year for Wi-Fi and other LAN equipment through 2019.

As part of the changes, the FCC also provided more flexibility and options for schools to purchase and access high-speed broadband.

Two Categories of Eligible Services and Equipment

E-rate features two funding categories:

Category One includes high-speed broadband access and voice services.

Schools and districts can subscribe to broadband services from internet service providers and purchase lit fiber services. The FCC's modernization effort now allows applicants to use E-rate funds to lease dark fiber or build their own high-speed broadband facilities if that's the most cost-effective option. The highest discount level for Category One services is 90 percent.

The 2018 funding year is the final year E-rate will pay for voice services. The maximum discount for voice services in 2018 will be 10 percent, which will only be available to those schools that have 75 percent or more students who qualify for NSLP.

Category Two's eligible equipment includes wireless access points and controller systems, routers and switches, and caching technology.

The highest discount level for Category Two services is 85 percent. Schools can apply for Category Two funding for purchases of up to $150 (before the discount) per student over a five-year period.

Benefits of E-Rate

E-rate provides many benefits to schools and districts. They include:

Lower costs and increased modernization through more competition. Overall, bandwidth costs have dropped from $22 per Mbps in 2013 to $7 in 2016, according to the "2016 State of the States" report by EducationSuperHighway. Several factors related to the E-rate modernization effort contributed to the lower bandwidth costs. Those factors include increased competition; new options for broadband service, including the ability to lease dark fiber and to build broadband facilities; and pricing transparency, Stephens says.

Since the E-rate modernization effort, school districts have increased access to high-speed broadband and reduced per-megabit costs for school districts, according to EducationSuperHighway. The amount E-rate fund recipients pay for services and technology is now publicly available, allowing schools and districts to negotiate better prices. The national average discount is 74 percent, according to the FCC. That frees up funds for applicants to spend on other needs such as more teachers or additional technology.

Digital classrooms and mobile learning. With high-speed broadband and a robust Wi-Fi network, schools can take advantage of mobile devices, such as Chromebooks, notebook computers and tablets. The technology can make learning more interactive and help students develop important technical and modern soft skills, such as creativity, collaboration and problem-solving, which prepares them for college and their future careers.

In fact, according to the Consortium for School Networking's "2017 K–12 IT Leadership Survey Report," mobile learning is the top priority for school IT leaders, followed by broadband and network capacity. The two priorities go hand in hand.

A mobile, digital curriculum allows for:

- **New instructional models.** Educators can move away from traditional lectures toward more innovative, personalized instruction that includes project-based learning, blended learning and flipped classrooms. The latter involves instruction by video at home, while class time is devoted to exercises, projects and discussion. Curricula enhanced by connected technology also allows instructors to place a greater emphasis on science, technology, engineering and math (STEM) education, which will prepare students for tomorrow's jobs.
- **Adoption of digital content.** Students gain greater access to educational content and learning tools, from e-books to educational videos. Through learning management systems and cloud-based tools, students can converse and collaborate with their classmates and teachers digitally, even outside of the classroom. Teachers can set up online class pages and create assignments with due dates, which students can work on and upload from anywhere. Adoption of digital

How to Navigate E-Rate's New Application Portal

The Universal Service Administrative Company's (USAC's) School and Libraries Program launched an E-rate application portal, called the E-rate Productivity Center (EPC), in hopes of simplifying and speeding up the application process. But since its launch in 2016, the website has suffered growing pains, including occasional outages and other technical hiccups, that have prevented schools and districts from filing applications or submitting invoices.

USAC is aware of the issues, and while they work out the kinks, E-rate experts say applicants need to call E-rate's call center or submit a detailed trouble ticket request on USAC's website if problems occur. Such actions will open a case file for USAC to resolve, says Kim Friends, Tennessee's state E-rate coordinator and vice president of E-rate compliance services for CSM Consulting.

Applicants should also contact their USAC state coordinator. Sometimes the state coordinator can escalate a problem if it's severe enough. "USAC is responsive when they are made aware of issues," Friends says.

USAC's portal issues are another reason why applicants should start the application process early. If there are problems with the portal, applicants have more time to file their applications, says Brian Stephens, senior compliance analyst at Funds for Learning.

content increases every year. In fact, 88 percent of IT leaders expect instructional materials to be at least 50 percent digital in the next three years, according to CoSN's "2016 K–12 IT Leadership Survey Report."

Wi-Fi and broadband help close the digital divide and equity gap. Because of the FCC's recent changes, E-rate funds are now distributed more equally among rural and urban schools and to a greater number of schools, says Amy Passow, business development manager for K–12 at CDW.

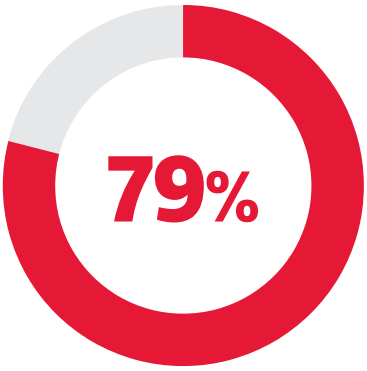
In the years before modernization, little or no E-rate funds were spent on Wi-Fi. The funding limitations created a disparity between urban and rural schools, with rural schools on average receiving 25 percent less Wi-Fi support per student and 50 percent less Wi-Fi funding per school, according to a 2014 FCC report.

Now, with at least $1 billion earmarked for Wi-Fi and networking equipment, all Wi-Fi funding requests by schools and districts that met eligibility requirements were funded in 2015, 2016 and 2017, Stephens says.

As a result, the number of schools that say they have sufficient Wi-Fi in their classrooms has more than tripled, from 25 percent in 2013 to 83 percent in 2016, according to the report.

The FCC modernization effort is also improving broadband access in rural schools by allowing them to use E-rate funds to build their own fiber networks and by establishing a state matching-funds program to help pay for construction, according to EducationSuperHighway. Today 79 percent of schools that don't have fiber connections are in rural or small communities, and it's largely because of the high cost of fiber construction, the organization says.

Through the matching-funds program, E-rate will provide schools an additional 10 percent in discounts for building broadband facilities if states contribute 10 percent of the cost of construction.



Percentage of schools that use cloud-based productivity tools; 57 percent use cloud-based learning management systems[2]

The E-Rate Process: How to Apply Successfully

Applying to E-rate is a multistep process. To succeed, applicants must plan and multitask well, meet deadlines and keep good documentation.

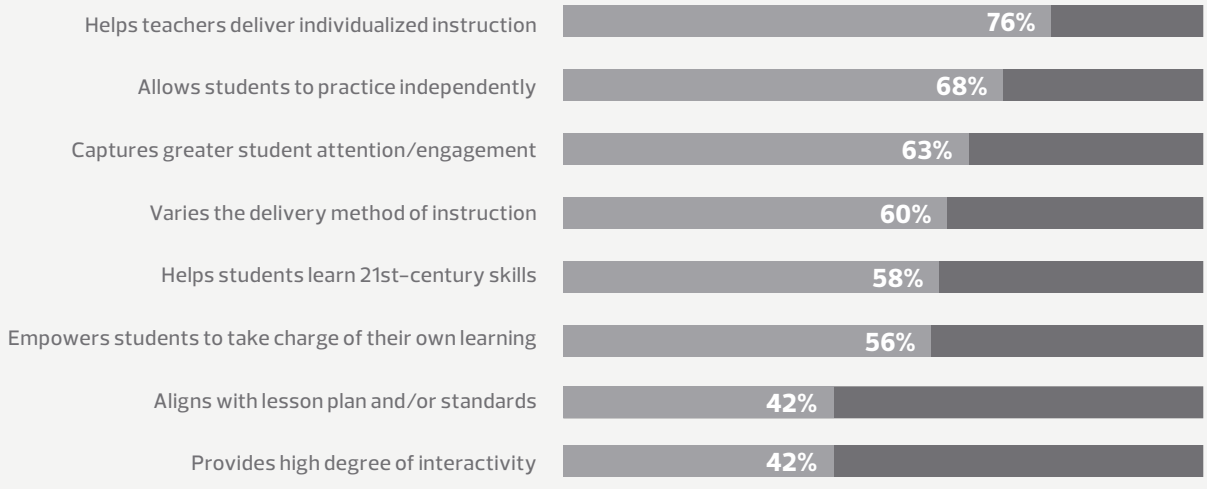
The application process is a year-round effort that requires applicants to juggle several years of funding simultaneously. For example, a district could answer questions from the current application while it processes reimbursements from a previous year and makes plans for next year's application.

To be considered for the 2018 funding cycle, schools and districts must submit their funding requests sometime between January and May. Before 2015, the filing deadlines were predominantly in February and March, but for the past three funding cycles, the deadlines have been in April and May. The Schools and Libraries Program of the Universal Service Administrative Company (USAC), which manages E-rate for the FCC, will announce the exact dates for 2018.

Here are six steps in the application process that require close attention:

1. **Open a competitive bid process.** File Form 470 to start the competitive bid process. Applicants must describe the specific services and technologies they seek. Once filed, applicants can solicit bids.
2. **Honor the 28-day waiting period.** After filing Form 470, schools and districts must wait 28 days before reviewing bids. When choosing a provider or vendor, applicants must choose the most cost-effective bid. Though price must be the primary factor, the FCC allows applicants to consider other factors, such as whether the product integrates with existing infrastructure and whether the vendor provides local support.

Top Benefits of Digital Content[3]



Sources: [2]CoSN, "2016 K–12 IT Leadership Survey Report," 2016; [3]ASCD and OverDrive, "Digital Content Goes to School," 2016

3. **Submit signed contracts and Form 471.** After schools select their service providers and vendors, they must have signed contracts before submitting Form 471. The form requires documentation that details the cost, the specific products and services schools want to purchase and where they will be deployed.
4. **Be responsive during the application review.** USAC reviews E-rate applications through a process called Program Integrity Assurance. If the PIA raises questions or finds problems, such as missing documentation, applicants must respond within 15 days. If they don't, the PIA may deny funds, says DeLilah Collins, the E-rate and special projects coordinator for Colorado.
5. **Receive the funding decision.** Once applications are reviewed, USAC will issue a funding commitment decision letter. If the project is approved, schools must submit Form 486 before USAC makes payments. With Form 486, schools must confirm the start date of services and that the school complies with the Child Internet Protection Act (CIPA).
6. **Invoice USAC.** Applicants can submit invoices in two ways. Applicants that pay their service provider or vendor in full can get reimbursed directly. First, they file a Form 498 to provide banking information to USAC. Then they fill out Form 472, Billed Entity Applicant Reimbursement (BEAR), to get paid. The other invoicing process is the service provider invoicing (SPI) method, in which the service provider handles the reimbursement process with USAC. Schools just pay the service provider a discounted bill for the services.

Eligible Services and Technology

The following list specifies which services and products are eligible for E-rate discounts (as of funding year 2017):

Category One

Data transmission services and internet access services, such as:

- Cable modem
- Digital subscriber line (DSL)
- Circuit channels (DS1, or T1; DS3, or T3; and fractional T1 or T3)
- Ethernet
- Integrated Services Digital Network (ISDN)
- Leased lit fiber
- Leased dark fiber
- Self-provisioned broadband networks
- Frame relay
- Multiprotocol label switching
- Transmission rates (OC-1, OC-3, OC-12)
- Wireless services (e.g., microwave transmissions)

Category Two

Internal connections, such as:

- Access points used in a LAN or wireless LAN
- Antennas, cabling, connectors and related components for internal broadband connections
- Caching
- Firewall services and components
- Switches
- Routers
- Racks
- Uninterruptible power supply (UPS)/battery backup
- Wireless controller systems
- Managed internal broadband services, such as Wi-Fi managed by a service provider
- Basic maintenance, such as repair and upkeep of eligible hardware and wire and cable maintenance

Plan, Plan and Plan Some More

Here are some tips on the application process that can improve chances of success:

1. **Start early.** File Form 470 as early as possible. Many schools and districts procrastinate until the last day to file the form to start the bidding process, but that's a mistake. The schools and districts that file early compete against fewer schools and they'll likely get more bids, Passow says.

   Filing early also allows applicants some wiggle room to make changes to their Form 470 if technology requirements change. Applicants that wait are locked into their Form 470. If they don't get the number or quality of bids they want, they won't have time to adjust the form to attract more bids, Passow says.
2. **Plan several years into the future.** To decide what to request in an application, schools and districts must figure out how much high-speed broadband and Wi-Fi access they need over the next two to three years at a minimum, says Kim Friends, vice president of E-rate compliance services at CSM Consulting and the state E-rate coordinator for Tennessee.

   That's because applicants often make requests for funds one year to 18 months in advance of when they purchase equipment and services, Passow says. Planning ahead allows schools and districts to prioritize projects. That's important for Category Two services, when applicants can only spend $150 per student over five years.
3. **Follow the competitive bidding process rules closely.** Most E-rate funding denials occur because of mistakes during the competitive bidding process, Collins says.

   Mistakes applicants make include:
   - Not waiting 28 days before selecting and signing a contract with a provider or vendor
   - Not using price as the primary factor when evaluating a bid
   - Accepting gifts of value by service providers or vendors
   - Choosing a vendor or service provider without reviewing the bid (during a competitive review process, applicants must review each of the bidders, assign scores to each based on their criteria, and then choose the one with the highest score)

   Every service provider or vendor must get the same information and opportunity for a fair and open competitive process, so don't provide more details to one organization over another, Friends says. In addition, it's easy to get tunnel vision on the E-rate requirements, but don't forget to also follow local and state procurement guidelines, she says.
4. **Develop a strategic plan and guide.** In most schools or districts, one person oversees the E-rate process, such as an IT administrator or even the superintendent. That

E-rate coordinator should create a strategic plan and guide that lists each E-rate deadline on a calendar. Also, record milestones needed for each deadline, Stephens says.

When creating the calendar, jot down the deadline for Form 471 and then work backward. Think through each step and how long it will take, then add a few extra weeks of cushion for that deadline. For example, before filing Form 471, districts must negotiate contracts and get school board approval, so bake those extra steps into the process, Stephens says.

Furthermore, identify all the information required for the application and who is responsible for it. The food services administrator will have the lunch program data, for example. Put that information in the guide. That way, if the E-rate coordinator of a district leaves, the staffer that takes over will have the strategic plan and know what to do, he says.

Additional Best Practices

Schools and districts should consider these additional best practices, which are often overlooked but could prevent a major delay or denial of funds:

1. **Make sure contact information with USAC is up to date.** USAC communicates through the online application portal and email. Some applicants may miss important correspondence and deadlines if their E-rate coordinators leave their jobs and no one is there to receive emails or check the portal. Make sure new E-rate coordinators have usernames and passwords for the portal and that they update the contact information, Collins says.
2. **Give concise answers during the review process.** When PIA reviewers reach out for more information, they often cut and paste boilerplate questions that sound more serious or complicated than they are. Often, a new E-rate coordinator at a school or district sees a verbose, official-sounding question and feels compelled to give a lengthy explanation when a "yes" or "no" would do.

   Resist that temptation, Stephens says. The problem with applicants volunteering more information than necessary is that the reviewer may misinterpret a lengthy answer and ask more questions, which takes additional time. The reviewer may only want, say, enrollment data for a school. It's perfectly fine to provide a short answer, he says.
3. **Consider hiring an E-rate consultant.** The application process is complicated. An E-rate consultant can save time and help the district meet all the deadlines and stringent requirements, Passow says. In fact, the number of districts using E-rate consultants has grown from 39 percent in 2011 to 62 percent in 2017, according to Funds for Learning.
4. **Take advantage of complimentary training and educational resources.** Districts that choose to do E-rate on their own have a wealth of resources at their fingertips. USAC's website has a library full of educational videos, tutorials and print resources. State coordinators offer no-cost onsite and online training. Applicants can also contact USAC's call center or the state coordinator if they have questions.