



E-Rate in FY 2017 and Resources for Success

E-Rate Training — Fall 2016

Presented by E-Rate Central

www.e-ratecentral.com



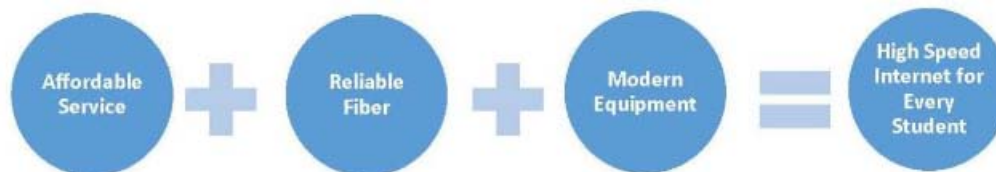
- **New Mexico Specific Initiatives**
 - Governor's Broadband for Education Initiative (BB4E)
 - Procurement Assistance Model
 - Mini-Quote System
 - PSCOC's Broadband Deficiencies Correction Program (BDCCP)
 - Matching funds for fiber projects and E-rate eligible infrastructure upgrades*
- **Basic E-rate application and invoicing cycle**
 - Required Forms
 - Program Compliance
 - E-Rate Productivity Center (EPC)
- **Resources Available**

* Contingent upon adequate funding sources from the state.



BB4E Goals

- Increase broadband accessibility throughout the state.
- Make broadband affordable through **Procurement Optimization**.
- Leverage federal, state, and local funding for upgrades and fiber infrastructure.
- Invest in resources today for the future benefit of all students.
- Affordability is the biggest challenge and Procurement Optimization should help.
- Target fiber connections for high speed Internet access.
- Optimize and upgrade equipment for Wi-Fi and LAN connectivity.





Procurement Optimization Goals

- Improve Internet Access Pricing (Goal \$1 per Mbps)
- Guide IT towards best procurement practices
- Engage providers and promote competition
- Utilize existing infrastructure for cost savings



Achieving the Goals

- PED issued an Request for Proposal (RFP) and Form 470 for Internet access services for eligible entities.
- RFP will result in Statewide price agreements in January 2017 that can be used to procure E-rate eligible services.
- Will ease the E-rate required competitive bidding requirements for entities using these contracts.
- Mini-bids/quotes may be required and Mini-quote system will be available to help applicants.



- Additional information can be found on the BB4E website (<http://www.broadband4education.nm.gov/Default.aspx>)
- Who should schools contact for help?

State E-Rate Coordinator for Schools

JOHN CHADWICK
New Mexico Public Education Department (PED)
E-rate Phone: (505) 827-6491
E-rate Email: StateErateCoordinator@state.nm.us
Website: <http://ped.state.nm.us>

- Who should libraries contact for help?

State E-Rate Coordinator for Libraries

PATRICIA MOORE
New Mexico State Library
Phone: (505) 476-9724
Email: Patricia.Moore@state.nm.us

- E-Rate Central is also contracted with the state to provide E-rate assistance.



What is the BDCP?

- Created by Senate Bill (SB) 159 to allow the Public School Capital Outlay Council (PSCOC) to expend up to \$10 million per year to improve broadband infrastructure affecting **public schools**.
- Funding is to be provided for Fiscal Years 2015 through 2019. Funding is dependent on annual appropriations.
- The day-to-day management of the BDCP program is led by the Public Schools Facilities Association (PSFA).



What does BDCP Support?

- BDCP can provide up to 10% in matching funds for “special construction” of fiber.

If BDCP funding is provided for “special construction” of fiber USAC will match the funding up to 10%, which could mean the schools pays nothing for the “special construction.”

- BDCP can provide funding for the non-discount portion of E-rate funded internal connections projects based on PSCOC’s Capital Outlay Formula.

See http://www.nmpsfa.org/16-17docs/2016-2017_State_Local_Match_Percentages.pdf for the current matching funds percentages.



Supporting schools during fiber projects

- Strategy discussions with schools to ensure there is a shared understanding of the E-rate program rules.
- Assistance in developing a scope of work, project management, evaluation of alternative solutions, and project implementation assistance.
- Review of various FCC Forms to help ensure compliance with E-rate program rules.
- PSFA is supported in these efforts by E-Rate Central and Education SuperHighway.



Category 2 Procurement Assistance

- During FY 2015 the state entered into price agreements to provide Category 2 Services to eligible entities. Awards were made to multiple vendors and a mini-bid/quote is required when using the state Form 470.
- The price agreements are not to exceed amounts and vendors may be able to offer lower pricing.
- Applicants can use their own Form 470 or the State Form 470 to buy services from these contracts. Pros and Cons to be discussed later.



Fiber Success Stories from FY 2016

- PSFA assisted 17 districts and five charters with fiber projects and the results have been great.
- School had an 12 Mbps connection at a cost of \$8,000 per month. Procurement will lead to construction of fiber at no cost to district and 100 Mbps fiber connectivity for \$800 per month. \$250 thousand fiber build out to be covered by E-rate and BDCP funding.
- Three schools had 100 Mbps microwave connections at \$65 thousand per month. Procurement will lead to fiber connection with an initial speed of 1,000 Mbps at \$6,000 per month. \$1.4 million fiber build out to be covered by E-rate and BDCP funding.



Participating in BDCP

- All BDCP projects must be approved by the PSCOC. PSFA can assist in gathering the information needed to submit request for approval.
- The process for requesting fiber or internal connections BDCP funding are very straight-forward and intended to make it easy for schools to participate.
- Go to the BDCP website...<http://www.nmpsfa.org/it/bdcp.htm> for various reference documents and applications for BDCP funding for fiber and internal connections.



BDCP matching funds for internal connections work

- Once USAC has disbursed funds for a PSCOC approved internal connections project, the BDCP program will reimburse the school for a portion of its non-discounted share.
- Below is an example of how the reimbursement will work...

Total Pre-Discount Project Cost	\$100,000
School Discount Rate	80%
Reimbursement from USAC	\$80,000
Non-discounted portion to be paid by school	\$20,000
Capital Outlay Matching Percentage	63%
Matching Funds Provided by BDCP	\$12,600
Net Cost to District	\$8,400 or 8.4%

- BDCP C2 funding can help schools with infrastructure upgrades for cents on the dollar.

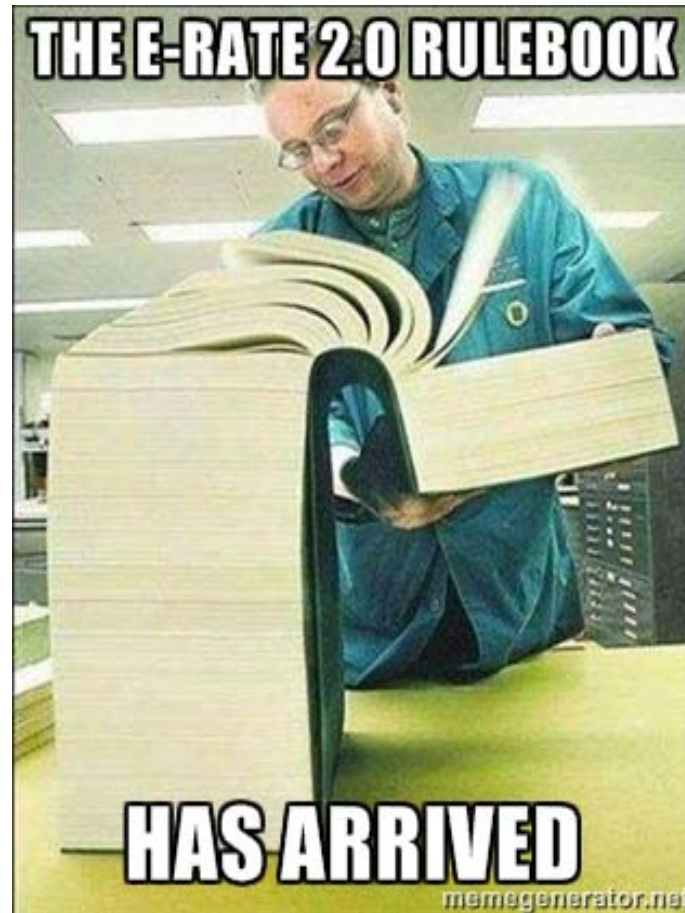


BDCP Program Contacts

- Ovidiu Viorica- BDCP Program Manager- oviorica@nmopsfa.org 505-843-6272
- Eric Moores- BDCP Fiber Project Manager- emoores@nmopsfa.org 505-468-0266
- Richard Govea- BDCP Broadband Project Manager- rgovea@nmopsfa.org 505-468-0269
- Ruth Bingham- BDCP Administrative Assistant- rbingham@nmopsfa.org 505-468-0268

- When should I get started on seeking BDCP Funding?

NOW





Basic E-Rate Cycle

1. File Form 470 (and RFPs If Needed)
2. Wait 28 days (vendor selection period)
3. File Form 471 (application)
4. PIA review and FCDL
5. File Form 486 (confirmation)
6. Submit invoices to USAC (BEAR (requires Form 498) or SPI)





Review of Modernization Orders

- Refocus E-rate on broadband to the classroom
 - Set broadband goals for schools and libraries
 - Target “predictable” funding for internal Wi-Fi connections
 - Fund Wi-Fi by eliminating or phasing out support for Priority 1 “legacy” services
 - Increase E-rate funding cap by \$1.5 billion
- Updated rules on competitive bidding, contracts, discount rates, electronic filing, technology plans and more.



Performance Goals

- Affordable access to ConnectEd broadband goals
 - Schools: Internet at 100 Mbps per 1,000 students short-term and 1 Gbps per 1,000 students long-term
 - Libraries: Internet at 100 Mbps for populations under 50,000 and 1 Gbps for larger populations
 - WAN connectivity “scalable” to 10 Gbps
 - Goals not requirements
- Maximum cost-effectiveness of purchases
- ~~Fast, simple, and efficient E-rate process~~



Changes Beginning in 2016

- Category 1 fiber eligibility and funding
- Most forms submitted through new EPC portal
 - Applicants (and consortium members) need fully functional EPC accounts
 - Form submission and certification are simultaneous
- Procurement requirements
 - RFPs uploaded with Form 470s
 - Category 1 dark fiber and self-provisioned fiber must meet strict procurement rules
- Direct BEAR payments to applicants.



Changes for 2017

- Very few changes – no additions or subtractions but changes in wording.
- Changed wording of “Dark fiber” to “Leased Dark Fiber (including dark fiber indefeasible rights of use (IRU) for a set term).
- Revised wording of Data transmission services and Internet access section, regarding bidding for dark fiber and self provisioned networks.
- Some format changes in the ESL.
- Clarified the definitions of WAN and Internal Connections as pertains to E-rate.
- New explanation of how to classify connections between multiple buildings of a single school, explaining the definition of campus.



Implications of the new explanations and definition of “campus”

- Connections between instructional buildings on a single school campus are considered internal connections.
- Connections between instructional buildings of a single school that are on separate campuses are considered Category One services.
- Connections between different schools on the same grounds are considered part of a WAN and therefore are considered Category One services.



Appendix B

Definition of WAN

“For broadband, connections forming a data network between multiple eligible schools or libraries are WAN connections for the purposes of the E-rate program.”

This includes connections for two eligible schools on the same grounds.



Appendix B

Definition of Internal Connections

“The Commission now defines internal connections as services “necessary to transport or distribute broadband within one or more instructional buildings of a single school campus or within one or more non-administrative buildings that comprise a single library branch”.”



Change in Note (2) of C1 Section

New Wording

(2) Applicants that seek bids for leased dark fiber must also seek bids for leased lit fiber service and fully consider all responsive bids. *Similarly, applicants that seek bids for self-provisioned broadband networks must also seek bids for the needed connectivity via broadband services provided over third party networks, and fully consider all responsive bids.*

Old Wording

(2) Applicants that seek bids for special construction of dark fiber or self-provisioned broadband networks must also seek bids for lit fiber service and fully consider all responsive bids.



Implications of New Wording in Note (2)

- On face value – just a word change, but could be read that applicants who seek self-provisioned solutions must also consider bids for leased lit fiber AND leased dark fiber.
- Cautious fiber bidders should consider all responses when determining the most cost effective solution.



Eliminate, Phase-Out, or Narrowly Define Support for “Legacy” Services

Category 1



Ineligible Category 1 Services

- Paging, email, text messaging, and voice mail.
- Telephone service components - directory assistance charges, custom calling services, direct inward dialing, 900/976 call blocking, and inside wire maintenance plans.
- Important to cost allocate ineligibles before submitting 471 and in invoicing USAC.
- Ineligible items **MUST** be evaluated separately from eligible items. Remove all costs of ineligibles when evaluating cost of eligible items.



Wireless Data Plans and Air Cards

Basically ineligible

- Technically: Data plans and air cards for mobile devices will continue to be eligible for E-rate support **only** in instances where the school or library seeking support **demonstrates** that individual data plans are the most cost-effective option for providing internal broadband access for portable mobile devices at schools and libraries
- Related Form 470 requires RFP if trying for mobile data
- If you are receiving these services they must be cost allocated before submitting the 471 and before invoicing USAC



Voice Service Phase-Out



- Applies to **all** voice services: Local phone service, long distance service, plain old telephone service (POTS), 800 service, satellite telephone, shared telephone service, Centrex, cellular voice, and interconnected VoIP
- Phase out schedule: 20 percentage points will be deducted from the eligible discount percentage each year beginning with FY 2015



Voice Service Phase-Out Table

Approved Discount % from Block 4	For FY2015	For FY2016	For FY2017	For FY2018	For FY2019
90	70%	50%	30%	10%	0
80	60%	40%	20%	0	
70	50%	30%	10%	0	
60	40%	20%	0		
50	30%	10%	0		
40	20%	0			
25	5%	0			
20	0				

↳ minus 60%

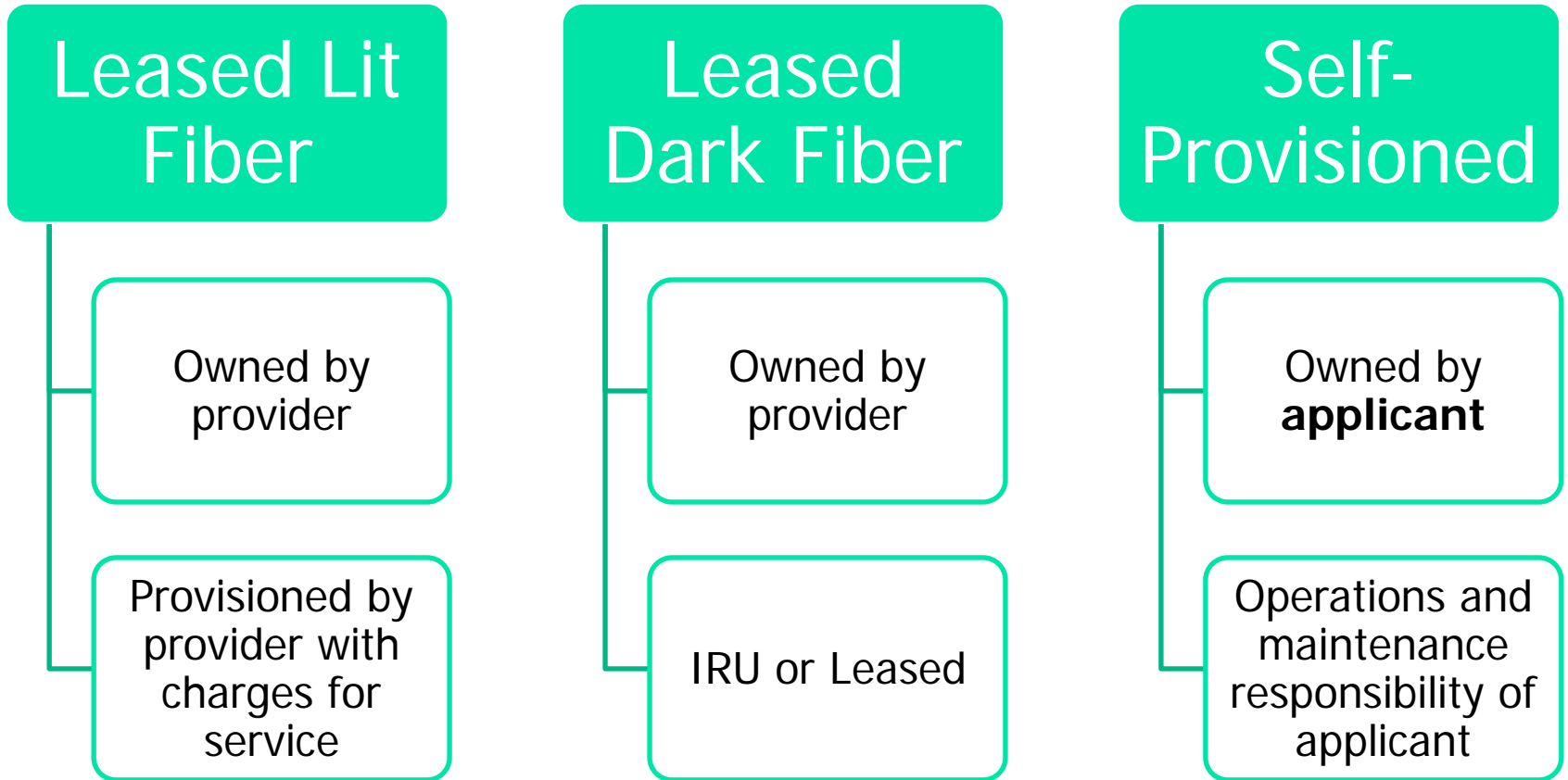


Enhanced Fiber Eligibility under E-Rate 2.1

- No amortization of installation charges on large projects
- “Modulating” electronics eligible as Category 1

As of FY 2016:

- Special construction charges for dark fiber become eligible
- “Self-provisioned” fiber purchases may be eligible
- Installment payments for non-discounted installation charges
- Additional 10% funding available with state-matching





Special Construction

- Special construction charges eligible for Category One support consist of three components:
 - ❖ construction of network facilities
 - ❖ design and engineering
 - ❖ project management

Note: The term “special construction” does not include Network Equipment necessary to light fiber, nor the services necessary to maintain the fiber. Charges for Network Equipment and fiber maintenance are eligible for Category One support as separate services, but not as special construction.



Timing Issues

- Leased dark fiber and self-provisioned MUST be lit during the funding year (i.e. by June 30, 2018 for FY 2017)
- Special construction can begin up to six months early if...
 - A valid competitive bidding process has been completed
 - A Category One recurring service depends on the installation of the infrastructure
 - Service starts after the start of the funding year
- One year extension available if project was unavoidably delayed. MUST be requested before June 30.



Special Construction Consideration

- Plan early
- Plan carefully
- Allow ample time for vendors to bid
- Do not be predisposed to one solution
- Milestone/progress payment are acceptable, but remember fiber must be lit by end of funding year.



Special Construction Considerations

- Additional strands may be installed for future use, BUT...
 - Fiber not lit in the funding year **MUST** be cost allocated.
 - Funding for excess fiber capacity can only be requested in the Funding Year it is lit.
 - Excess capacity for the applicant's future use **CANNOT** be resold.
 - If you are only lighting two strands but installing 12 strands you must cost-allocate the additional ten strands, but how...
 - The incremental cost or a proportional percentage of the total construction costs?
- Cannot state a preference between leased lit, dark, or self-provisioned fiber.



Special Construction Considerations

- RFPs should request comprehensive specifications, including:
 - Route assessment, maps, ROW access, and easement requirements.
 - Invoice level detail that will be required by USAC.
 - How fiber will be delivered aerial, buried, or underground and costs, such as:
 - Pole attachment, make-ready, trenching and boring, handhole, splice enclosures, vaults, engineering, environmental assessments, permits, survey, ROW, etc.
 - Cannot state a preference between leased lit, dark, or self-provisioned fiber.



Enhanced Fiber Eligibility *(cont'd)*

Cautions:

- Bid evaluations for dark fiber, IRUs, and owned fiber must be compared with lit fiber solutions and must be defensible.
 - Clearly explain any assumptions made.
- Bid evaluations must fairly compare all costs of alternatives
- Must compare the cost over the life of the asset (up to 20 years)



Support of Internal Connections

Category 2



Category 2 Equipment & Services

- Basic: Cabling, routers, switches, wireless access points
- At least through FY 2019:
 - Maintenance of basic LAN equipment
 - Managed Wi-Fi
 - Caching servers
- Newly ineligible:
 - All other servers
 - Telephone systems (including VoIP)



Category 2 Budgets

- Each eligible school shall be eligible for support for Category 2 services up to a pre-discount price of \$150 per student over a five-year funding cycle
- Library Category 2 funds limited to \$2.30 per square foot (\$5.00 per square foot for large urban libraries)
- Minimum pre-discount funding per school or library is \$9,200
- Category 2 funding in any given year is not assured, but should be available at all (or most) discount levels

Major unknown: Category 1 demand for large fiber networks



Category 2 Budgets (cont'd)

- Budget is per school or library summed over all applications
 - **Not** per district or library system
 - Existing school budgets may rise or fall over the five year period as student count changes. Budget cuts do not impact earlier funding
 - New schools may estimate the number of students, but shall repay any support provided in excess of the maximum budget based on student enrollment the following funding year

- Support is **not** available for Category 2 services provided to administrative buildings (“NIFs”)
 - But common equipment can be allocated to schools and libraries wherever it is located



Category 2 Budgets (example)

- Red School District qualifies for 50% discount rate
- There are 1,000 students in total. The High School has 550 students, but 10 Middle school students take advanced classes there.

School	F/T & P/T Students x	Pre-discount Category Two Budget	Post-discount Category Two Budget
Red Elementary	100	100 x \$150 = \$15,000	\$15,000 x 50% = \$7,500
Red Middle School	300	300 x \$150 = \$45,000	\$45,000 x 50% = \$22,500
Mountain Top Elementary	50	50 x \$150 => \$9,200 (min.)	\$9,200 x 50% = \$4,600
Red High School	560	560 x \$150 = \$84,000	\$84,000 x 50% = \$42,000
District Office	0	\$0 (NIFs don't qualify)	\$0 (NIFs don't qualify)

- Totals: 1,000 students for discount rate purposes;
- 1,010 (effectively 1,021) students for Category 2 budget purposes



Category 2 Budgets (example)

- Shared service allocation example – \$30,000 pre-discount cost for School A with 250 students, School B with 500 students, and School C with 750 students.

Straight line	Proportional by students	Specific (e.g., usage)
A = \$10,000	$A = 250/1500 \times \$30,000 = \$5,000$	A uses 30% = \$9,000
B = \$10,000	$B = 500/1500 \times \$30,000 = \$10,000$	B uses 15% = \$4,500
C = <u>\$10,000</u>	$C = 750/1500 \times \$30,000 = \underline{\$15,000}$	C uses 55% = <u>\$16,500</u>
\$30,000	\$30,000	\$30,000



Category 2 Budgets (cont'd)

- Managing “over-budget” situations is critical
 - Separate FRNs for separate budget entities may be preferable
 - Include all eligible line items
 - Reduce pricing proportionally to stay within budget
 - Use “Narrative” to further explain requests

- 5-year budget cycle management
 - Cancel unused funding to free up budget(s) for future years
 - Begin 5-year cycle as early as possible



*USAC's New
E-Rate Productivity Center ("EPC")*



Where do I find what I need?

Legacy System

- Data and forms from 2015 and prior
- Form 486 for 2015 and prior
- BEAR
- Service Provider Account Maintenance
- Service Provider Form 498
- SPAC (Service Provider Form)
- SPI (Service Provider Form)

E-Rate Productivity Center (EPC)

- ALL Applicant Forms and Data(except BEAR) 2016 and BEYOND
- USAC Appeals 2016 and beyond



EPC Required for MOST Applicant forms Beginning 2016 and Forward

- Accounts needed for all applicants, consultants, and service providers
- Initial setup required by primary organization contact
- Service Providers with more than one SPIN may need special setup
- Consortium accounts may need special setup
- Warning: Passwords need to be reset every 60 days



Different Users Have Different Rights

- Individual users identified by email address
- Account Administrator is the controlling user
- Full rights users can submit/certify forms
- Partial rights users can draft forms
 - "Save and Continue" vs. "Save & Share" (Issues with this)
- View-only rights users can see only some information.
 - State coordinators have targeted view-only rights



E-Rate Forms Must Be Filed Through EPC

- Posting and certification required together
- All forms: 470, 471, 486, 498 filed in EPC beginning in 2016
- Form 470 available now for 2017
 - RFPs, if used and/or required, must be uploaded first
 - “Cardinal” change is an addendum issue
 - All documents related to procurement **MUST** be uploaded to EPC or risk denial



Other EPC Facts

- Form 498 required for direct payments of BEARs
 - EPC version of Form 498 is available now
 - BEARS must be filed online and can only be filed if the 498 is approved first
- Contracts may be uploaded to EPC but it isn't required



EPC Problems

- EPC is under development and changing weekly
- Different users have different views and rights only assigned by Account Administrator
- Permissions are individually applied to individual forms, PIA and appeals
- Terms of use agreement are limiting
 - Email addresses and passwords are not to be shared
 - Robotic access to data is prohibited
- System usage is not intuitive



Discount Rate Issues



Discount Matrix

	Category one schools and libraries discount matrix		Category two schools and libraries discount matrix	
	Discount level		Discount level	
% of students eligible for National School Lunch Program	Urban discount	Rural discount	Urban discount	Rural discount
< 1.....	20	25	20	25
1-19.....	40	50	40	50
20-34.....	50	60	50	60
35-49.....	60	70	60	70
50-74.....	80	80	80	80
75-100.....	90	90	85	85



Discount Rate Calculations

- Each school or group of schools in a school district must use the single district-wide “matrix” discount rate for **all** funding requests
 - An Educational Service Agency (“ESA”) applicant without its own schools determines its discount using all E-rate eligible students in schools that fall under the control of the central educational agency
 - Technical and special education schools are allowed to double-count students attending part-time with “snap-shot” counts
 - Private or charter schools, operating as a group under the same administration and finances, must use a single district-wide “matrix” discount rate for **all** funding requests (i.e., treated like a district)



Discount Rate Calculations (cont'd)

- An individual library uses the eligibility percentage of the district where library is located
- All libraries in a library system must use the single system-wide “matrix” discount rate for **all** funding requests using the eligibility percentage of the district where the main branch of the library system is located
- School and/or library consortium applicants must average each member’s district-wide discount for each application



Consortium Discount

- Based on simple average of member discounts
- Consortium is the only type of applicant that can have a non-matrix discount
- Consortium discount applies to all FRNs within an application
- Per FCC direction — USAC will prioritize application review for state and regional consortium applicants
- Consortium membership LOAs must be in place **prior** to filing the Form 470



Community Eligibility Provision (CEP)

- Districts and schools participating in the CEP will determine their discount percentage by using the same approach as that for NSLP eligibility under CEP, i.e., the percentage of direct certified children times the CEP Multiplier – presently 1.6 – not to exceed 100% student eligibility
- The CEP discount percentage – direct cert x 1.6 – may be used for up to 4 years
- If applicant adjusts its calculation of CEP, the change must be applied to its E-rate discount



Survey Method for Discount

- Discount determination based **only on surveys received** in reference to total student population (no extrapolation allowed):

Example – 100 total students are all surveyed. Assume 60 surveys are returned – of those, 52 surveys indicate students are eligible for Free or Reduced lunch

- Previously: 52 of 60 students eligible = 87% eligibility extrapolated to 100 students meant a 90% discount
- As of FY 2015: 52 of 100 students eligible = 52% eligibility means an 80% discount



Urban – Rural Determination

- Census data will be used for determining urban/rural status
 - “Urban clusters with populations under 25,000 are “rural”
- A district or library system with a majority of entities considered rural will receive the benefit of rural status
- USAC has posted a tool on its website to allow applicants to quickly find the urban/rural status of their entities

U/R tool may return “Invalid Address”



Discount Calculation Considerations

- Use state validated numbers such as 40 or 80 day count.
- Easiest path to approval is using state posted numbers
- For FY 2016...
 - http://ped.state.nm.us/nutrition/2016/Final_FRL_October_SY15_16.xlsx
 - New numbers for FY 2017 will be posted once validated.



Discount Calculation Considerations (continued)

- District charter schools are considered part of the district.
 - Discount calculated using the district's NSLP information not the charter's NSLP information.
 - Parent/Child issues can be challenging.
 - Unclear guidance from USAC about how to file. Hopefully, clarification will be provided.
- State charters are considered independent schools
 - Determine discount using only their NSLP information.
 - Filing remains unchanged.



- Consider forming consortia to drive down costs, can include...
 - Libraries
 - Districts
 - Charter Schools
 - Other Entities (Cost allocation required)

- Libraries and charters in New Mexico are underserved by E-rate and a consortium can help.
 - Especially important in rural areas.
 - Process of forming a consortium is pretty simple.



Other Developments

- Form 498 required for direct payments of BEARs
Form 498 should have been filed already
- EPC has option to upload contracts
- Eventually EPC may have option/requirement to upload bids and assessments



Other Procedural Issues



Invoice Filing Deadlines

- FCC codifying existing invoice filing (BEAR & SPI) deadline process allowing applicants to request and automatically receive a single **one-time** 120-day extension of their invoicing deadline
 - Invoice deadline extension requests must be made **no later than** the existing initial deadline for filing BEAR or SPI requests
 - USAC not allowed to grant further invoice deadline extension requests
 - Waivers by the FCC may be granted only in extraordinary circumstances
 - Previously multiple extensions would be granted by USAC
 - **INVOICE DEADLINE FOR 2015 RECURRING SERVICES IS OCTOBER 28, 2016**



Appeal Rules

- All appeals of USAC decisions **must** be made to USAC as a first step before filing appeals with the FCC
- Applicants seeking **only** a waiver of the rules may address the waiver request directly to the FCC
- When in doubt, file with USAC first
- Starting with 2016 applications, USAC appeals must be submitted in EPC



Document Retention

- The document retention period has been extended from five to **10 years** after the latter of the last day of the applicable funding year, or the service delivery deadline for the funding request
- Documents retained by EPC **does not** relieve applicants of retaining their own documents (but can help)
 - Submitted E-rate forms
 - RFPs (and bids?)
 - Contracts



FY 2017 Should Be Less Challenging than FY 2016!

- EPC is still under development
 - Use is neither easy nor intuitive
- EPC-based Form 470 and Form 471
 - New RFP requirements — particularly for fiber
 - New discount rate issues for consortia
- Form 498 required for direct BEAR payments



Additional Information

Website: www.usac.org/sl/

Portal: portal.usac.org



E-Rate Central

Website: www.e-ratecentral.com

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Questions?