



Nevada Connect Kids Initiative

Planning an E-rate Category 1 procurement
FCC Form 470 tips



November 6th, 2017



What we'll cover

1

Introduction

2

Where to start with E-rate Category One

3

Hints, tips and tools for optimizing your E-rate Cat One procurement

4

How to take advantage of the new E-rate fiber options

5

Q&A



Nevada Governor's
Office of Science,
Innovation and
Technology



Presenters



Aarti Bhatnagar

Program Manager, Education
Superhighway

aarti@educationsuperhighway.org



Joe Freddoso

Mighty River, LLC

jfreddoso@mightyriverllc.com

After this session, you will be able to...

In 2016, more than

55%

of applicants leveraging the new rules were denied E-rate funding, mostly due to small avoidable violations.

- ▶ **Understand common and avoidable filing errors**
- ▶ **Get templates and guidance for filing a good 470/RFP**
- ▶ **Understand the new USAC terminology**
- ▶ **Prepare for the PIA process**

What we'll cover

1 Introduction

2 **Where to start with E-rate Category One**

3 Hints, tips and tools for optimizing your E-rate Cat One procurement

4 How to take advantage of the new E-rate fiber options

5 Q&A

Forecast your future bandwidth needs

In 2014, the FCC adopted these bandwidth goals as a guide for districts:

BROADBAND ACCESS FOR TEACHING, LEARNING & SCHOOL OPERATIONS	2014-2015 SCHOOL YEAR TARGET	2017-2018 SCHOOL YEAR TARGET
An external Internet connection to the Internet Service Provider (ISP)	At least 100 kbps per student	At least 1 Mbps per student
Internal Wide Area Network (WAN) connections from the district to each school and among schools within the district	At least 1 Mbps student	At least 10 Mbps per student

- ▶ **Your upgrade plan should consider your needs for the next 3-5 years**
- ▶ **School districts embracing digital learning are experiencing bandwidth growth of 50% - 100% per year**

Define the specific bandwidth needs for your district

K-12 bandwidth profiles based on goals and common practice

**BANDWIDTH REQUIRED:
1+ Mbps/Student**

Browsing
Online Testing
Light Video Collaboration
Light Streaming Video
Remote Instruction

**BANDWIDTH REQUIRED:
800 kbps/Student**

Browsing
Online Testing
Light Video Collaboration
Light Streaming Video

**BANDWIDTH REQUIRED:
100 kbps/Student**

Browsing
Online Testing

MODERATE

Classroom based computers
30% concurrent users

1:1

1:1 or moving to 1:1
Moving service to the cloud
50% concurrent users

MEDIA-RICH

1:1
Media-rich instruction
Cloud-based service
BYOD
80% concurrent users

FCC goals provide a good foundation, but also consider district specifics:

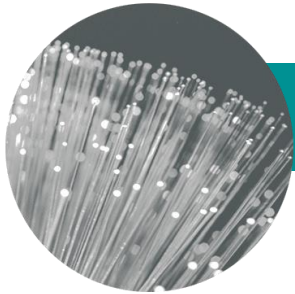
- ▶ **Design based on your district's digital learning plan**
- ▶ **Dimension for all users and locations**
- ▶ **Factor in concurrency for IA**
- ▶ **Consider the impact of BYOD**
- ▶ **Size for peaks, not averages**
- ▶ **Add bandwidth "padding"**
- ▶ **Monitor your network**



Nevada Governor's
Office of Science,
Innovation and
Technology



Consider your technology options



LIT
FIBER



DARK
FIBER



SELF
PROVISIONED

- ▶ With E-rate Modernization, districts **can procure a fully managed lit fiber service from a provider or different types of dark fiber** to create own transport services
- ▶ **Dark vs. lit fiber is a classic “own vs. rent” comparison**
 - ▶ Project and compare bandwidth needs and costs for 5-20 years
 - ▶ Also compare other factors such as timing, network quality factors, resource demands and skills, etc

What we'll cover

- 1 Introduction
- 2 Where to start with E-rate Category One
- 3 **Hints, tips and tools for optimizing your E-rate Cat One procurement**
- 4 How to take advantage of the new E-rate fiber options
- 5 Q&A

E-rate modernization created new opportunities for applicants

E-rate funding and rule changes have created **an unprecedented short term opportunity** to support district upgrades:



- ▶ \$1.5B more per year in E-rate fund, and more options to connect districts to fiber
 - ▶ E-rate will cover the cost of deploying new fiber (lit, dark, or self-provisioned)
 - ▶ Suspended \$500,000 amortization cap on construction costs through FY2018
 - ▶ Installment payments for applicant share of new construction costs.
- ▶ **State match funding**
 - ▶ Special construction costs only
 - ▶ 18 states now have matching funds
 - ▶ Up to 20% added to discount share

Put together your FCC E-rate Form 470

RFPs

Id	Name
228403	069-16A.11

Category One Service Requests

Service Type	Function	Other	Minimum Capacity	Maximum Capacity	Entities	Quantity	Unit	Installation and Initial Configuration?	Maintenance and Technical Support?	Associated RFPs
Internet Access and/or Telecommunications	Self-Provisioned Networks and Services Provided Over Third Party Networks				4			Yes	Yes	228403
Internet Access and/or Telecommunications	Leased Dark Fiber and Leased Lit Fiber				4	4	Fiber Strands	Yes	Yes	228403

Description of Other Functions

Id	Name

Narrative

Seeking bids for WAN and Internet circuits connecting all of our locations at a minimum speed of 1 Gbps up to a maximum of 10 Gbps, as well as ISP services. See RFP for details.

Installation Payment Plan
 Range of Years: 1 - 4 Years
 Payment Type: Monthly

- ▶ Set a maximum bandwidth that will allow you to scale up within the contract term
- ▶ Bid several tiers of bandwidth
- ▶ RFP document(s), if issued, must be posted to the FCC Form 470
- ▶ Make sure services requested on Form 470 match RFP and narrative



Know your E-rate terminology



USAC has very specific terms for specific service types

- ▶ Using the wrong terminology in your 470/RFP can lead to denial
- ▶ Understand how USAC defines the services you are asking for, e.g. difference between “Internet Access and Transport Bundled” and “Internet Access: ISP service only”

Key Changes to FCC Form 470 Terms for FY18:

- ▶ Leased dark fiber = “**Leased Dark Fiber & Leased Lit Fiber**”
- ▶ Self-provisioning = “**Self-Provisioned Network and Services**” **Provided Over Third-Party Networks**”
- ▶ “**Internet access and transport bundled**” is strictly for non-fiber internet connections
- ▶ “**Transport only**” is for non-fiber transport connections only

Know when you need an RFP in addition to the form 470

If you are seeking...	RFP required?	You must also seek bids for...	You should select in the Form 470...
Lit Fiber (no special construction)	No, just 470	n/a	"Leased Lit Fiber"
Lit Fiber (with special construction)	No, but recommended and include 470	n/a	"Leased Lit Fiber"
Leased Dark Fiber (with or without special construction)	Yes and include 470	Lit Fiber	"Leased Dark Fiber and Leased Lit Fiber"
Self-Provisioning	Yes and include 470	Lit Fiber	"Self-Provisioned Networks and Services Provided Over Third-Party Networks"*
Bundled ISP and Transport over Fiber	No	Internet Access and Transport Bundled	"Internet Access and Transport Bundled and Leased Lit Fiber"

Think about the key information to request in your RFP

Leased Lit Fiber, Internet, or Transport	Leased Dark Fiber	Self-Provisioned
Bandwidth ranges and incremental pricing	Number of strands to each site	Number of strands to each site
Various contract lengths	Various contract lengths	Outside plant and construction specifications
SLA and trouble reporting	SLA, maintenance, and trouble reporting	Request detailed build information (e.g. route maps)
	Equipment	Require invoice level pricing
		Fiber maintenance services
		Equipment

Know your E-rate terminology – Special Construction

The upfront, non-recurring costs associated with the installation of new fiber to or between eligible entities is eligible for state match funding.

Applicable for funding of: Lit Fiber, Dark Fiber, and Self-Provisioned Fiber



- ▶ Special construction eligible for Category 1:
 - ▶ Construction of network facilities
 - ▶ Design and engineering
 - ▶ Project management
- ▶ Does not include network equipment nor services to maintain fiber (these are Cat1)
- ▶ Charges incurred up to 6 months prior to the beginning of the funding year are eligible if:
 - ▶ Construction begins after service selection pursuant to a valid competitive bidding process
 - ▶ Recurring service depends on the installation of the infrastructure; AND
 - ▶ Actual Cat1 service start date is after the start of the funding year

Write a good 470 Narrative

You should describe the desired products and services **with sufficient specificity for service providers to be able to submit responsive bids, and include:**

- ▶ **Detailed service request**
- ▶ **Request for all inclusive pricing**
- ▶ **Option for special construction (where relevant)**
- ▶ **E-rate funding contingency (where relevant)**

	Sample "good" 470	Sample "not-so-good" 470
SERVICE DESCRIPTION	Internet Access and/or Telecommunications Lit Fiber Service Min cap = 100 mbps Max cap = 500 mbps	Internet Access and/or Telecommunications Internet Access & Transport Bundled Min cap = 500 mbps Max cap = 1 Gbps
NARRATIVE	We are requesting symmetrical lit fiber Internet access for the entire district. Service should be terminated at [name and address of district hub]. Pricing should be included for [100Mbps or 1Gbps] increments from the minimum to the maximum bandwidths noted above. We are seeking [1, 3, 5] year contract options. [3 or 5 year] contracts should allow for upgrades to quoted bandwidth throughout the terms of the contract. If an increase in bandwidth is requested during the contract period the contract does not renew. 	Internet Access 1 line @ 500 megs – 1 gig or better



Nevada Governor's
Office of Science,
Innovation and
Technology



Use our ready-made templates

Have your Form 470 and RFP reviewed by us!

The screenshot shows the Education Superhighway website. At the top, there is a navigation bar with the logo on the left and links for 'Upgrade Support', 'Compare Prices', 'Tools & Resources', and 'State of the States'. Below this is a secondary navigation bar with 'Tools & Resources', 'Get Started', 'Research Your Options', 'Secure Funding', 'Purchase & Implement', and a search box. The main content area is titled 'RFP Guides & Templates'. It contains several sections: 'After deciding your network upgrade needs...', 'If you are using the FCC's E-Rate funding...', 'Applicants post a Form 470 to open the E-rate bidding process...', 'Before the RFP', 'Drafting an RFP', and 'RFP Examples'. The 'RFP Examples' section lists various templates like 'Internet Access RFP Templates', 'WAN RFP Templates', and 'Category 2 RFP Templates'.

Downloadable templates for compliant FCC Form 470s and good RFPs online, go to:

<http://bit.ly/2xelzAe>



Nevada Governor's
Office of Science,
Innovation and
Technology



Avoid the three big “gotchas”



1

The 28-day bidding period

- ▶ FCC Form 470 and any RFPs must be posted on the USAC website for a **minimum of 28 calendar days**
- ▶ If the applicant makes a “cardinal change” to the RFP or RFP documents, **restart the 28-day clock**



2

Bidding must be “open” and “fair”

- ▶ All bidders must have access to the FCC Form 470 and RFP documents and are responsible for running an open and fair competitive bidding process
- ▶ If you list a specific manufacturer, always indicate “or Equivalent”



3

Bid evaluation must be consistent

- ▶ Stay true to your RFP bid matrix – inconsistency can be grounds for denial
- ▶ Cost-effectiveness must be the highest weighted factor



Nevada Governor's
Office of Science,
Innovation and
Technology



What we'll cover

- 1 Introduction
- 2 Where to start with E-rate Category One
- 3 Hints, tips and tools for optimizing your E-rate Cat One procurement
- 4 How to take advantage of the new E-rate fiber options**
- 5 Q&A

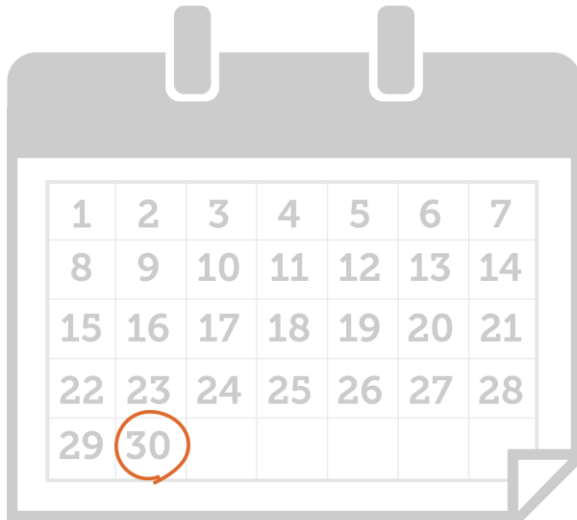
1 Strands and more strands

- ▶ **For leased lit fiber built with special construction funds**, E-rate will only reimburse construction of strands used to serve the applicant. Provider responsible for incremental costs of excess strands.
- ▶ **For leased dark fiber built with special construction funds**, E-rate will only reimburse strands the applicant plans to place into service (light) the first year. Provider responsible for incremental costs of excess strands.
- ▶ **For self-provisioned fiber** – E-rate only allows the strands to be used by the applicant and only reimburses strand counts to be placed into service in the first year
- ▶ **Self Provisioning-Ineligible Applicants-using excess strands will result in your project costs being entirely cost-allocated**



Current Hot Topics

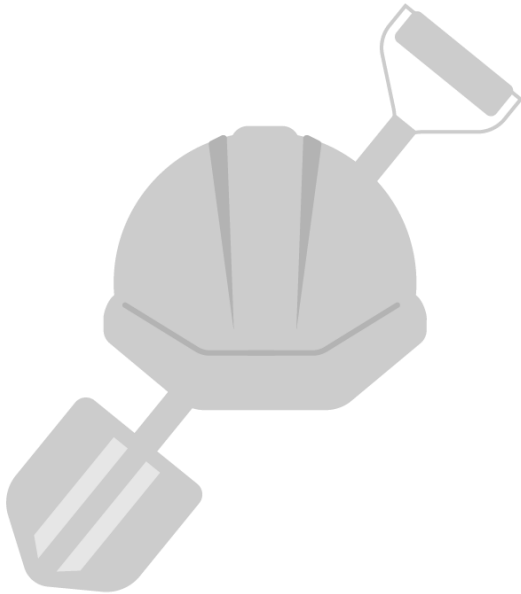
2 Timing and Guidelines



- ▶ **E-rate support is only available for leased dark fiber (with and without special construction) that is lit, and self-provisioned networks that are constructed and used, in the same funding year (June 30)**
- ▶ Extension requests only if applicant demonstrates that construction was unavoidably delayed due to weather or other reasons
- ▶ Implementation deadline for special construction/leased lit fiber: June 30



3 Self-Provisioning Community Builds



- ▶ A Self-Provisioning consortium that includes both eligible and an ineligible, “public sector” (municipal/county government for example) member
- ▶ E-rate requests must focus on schools and libraries, not other entities that could get connected through new infrastructure
- ▶ Public sector entity must cover all incremental costs beyond what is required to serve the E-rate eligible members of the self-provisioning consortium





4 State match eligibility

- ▶ Your solution **must meet the FCC's long-term goals** to be eligible for state match
 - ▶ *For high speed internet access on a per student basis, 1 Gbps, i.e. 1 Mbps per student for high speed Internet access.*
 - ▶ *For WAN connections, **scalable to** 10 Gbps, i.e. 10 Mbps per student for WAN connections.*
- ▶ Cost allocation applies to match



What we'll cover

- 1 Introduction
- 2 Where to start with E-rate Category One
- 3 Hints, tips and tools for optimizing your E-rate Cat One procurement
- 4 How to take advantage of the new E-rate fiber options
- 5 Q&A