



Education

SUPERHIGHWAY

**Avoid Common Mistakes on Your E-rate Applications:
Help with Your Category 1 Requests**

Welcome Oregon Schools & Districts!

EducationSuperHighway Overview

Non-partisan non-profit whose mission is to upgrade the Internet access in every public school in America



Digital learning is the most scalable path to equal educational opportunity



Access to sufficient bandwidth is a prerequisite



Upgrading schools is a national priority

EducationSuperHighway in Oregon

We have partnered with the Oregon Department of Education to provide the following to districts and ESDs:



Data input training on the Form 471 and E-rate application process



Data verification support for Oregon's ESDs as they verify E-rate data quality



Strategic analysis on medium, costs, and bandwidth across the state

Our partnership with ODE



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Why providing quality data matters

Represent your district

- Accurately represent your district's purchases to compare yourself to districts with common characteristics within your local region or state

Provide you with meaningful analysis

- Accurate data will allow us to identify aggregate broadband trends within your state

Measure your progress towards ConnectEd goals

- Accurately representing what your district is purchasing will allow you to understand your progress towards the 2018 goal
- Contribute to our national understanding of the broadband progress of America's schools

Minimize your USAC follow up

- Providing more clarity in your application minimizes follow up required by USAC

Most common mistakes

Basic Information

Discount Calculation

Funding Requests

Certifications & Signature

Discount Calculation

Connectivity Questions #1 & #2

FRN Key Information

- Telecommunications vs Internet Access vs Voice
- Pricing Confidentiality

FRN Item 21 Line Items

- Service Type Categorization
- Determining Purpose
- Define Terminology: Burstable, Last Mile, WAN

Most common mistakes: Discount Calculations

(#1) Connectivity Question 1

To calculate your school district's bandwidth per 1000 users, simply divide the total Internet access bandwidth your district receives by the total number of users (students and staff). Multiply your answer by 1000 and choose the appropriate selection.

Ex: 2000 Internet Mbps ÷ 1500 users × 1000 = 1,333 Mbps per 1000 users

Does the school district (or school, if not part of a district) have Internet access of

- ☐ less than 100 Mbps per 1,000 users (students and staff)
- ☐ at least 100 Mbps per 1,000 users but less than 1Gbps per 1,000 users
- ☒ at least 1 Gbps per 1,000 users

Most common mistakes: Discount Calculations

(#2) Connectivity Question 2

How many of the schools in the school district have Wide Area Networking connections that are scalable to 10 Gbps?

This question is trying to understand the number of schools in your district that have a fiber connection. If only a portion of schools in your district have fiber circuits, indicate the number of schools.

The only broadband product scalable to 10 Gbps is FIBER.

Most common mistakes: FRN Key Information

(#3) Category 1: Telecommunication vs Internet Access vs Voice

Category 1	Possible Services
Telecommunications	Wide Area Network
Internet Access	Internet Access Wide Area Network
Voice Services	Local & Long Distance Cell Phone Voice T1/DS1 circuits for phone lines

- All services that supply broadband connectivity to your school or district's door from outside the entity should be categorized under **Internet Access**
- All Wide Area Network connectivity should be categorized under **Telecommunications**
- Any service or product used for **Voice Services** MUST be categorized appropriately as it is subject to the 20% phasedown

Most common mistakes: FRN Key Information

(#4) Pricing confidentiality clause

Pricing Confidentiality

Is there a statute, rule, or other restriction which prohibits publication of the pricing information?

Yes

No ✓

USAC will follow-up with all FRN's that are identified as restricted under a privacy clause

- If you select “Yes,” you will be asked to cite the type of restriction and the specific citation.
- If you are unsure, ask your service provider to provide the specific documentation in your contract that prohibits you from sharing pricing information.

Most common mistakes: FRN Line Items

(#5) Category 1 Service Types

Service Type	Item 21 Service Description
Digital Transmission Service	Internet Access Wide Area Network
IA Only (no circuit)	ISP Services
Wireless Service	Wireless broadband connections Data Cards
Voice Services	Cell phone voice Local & long distance

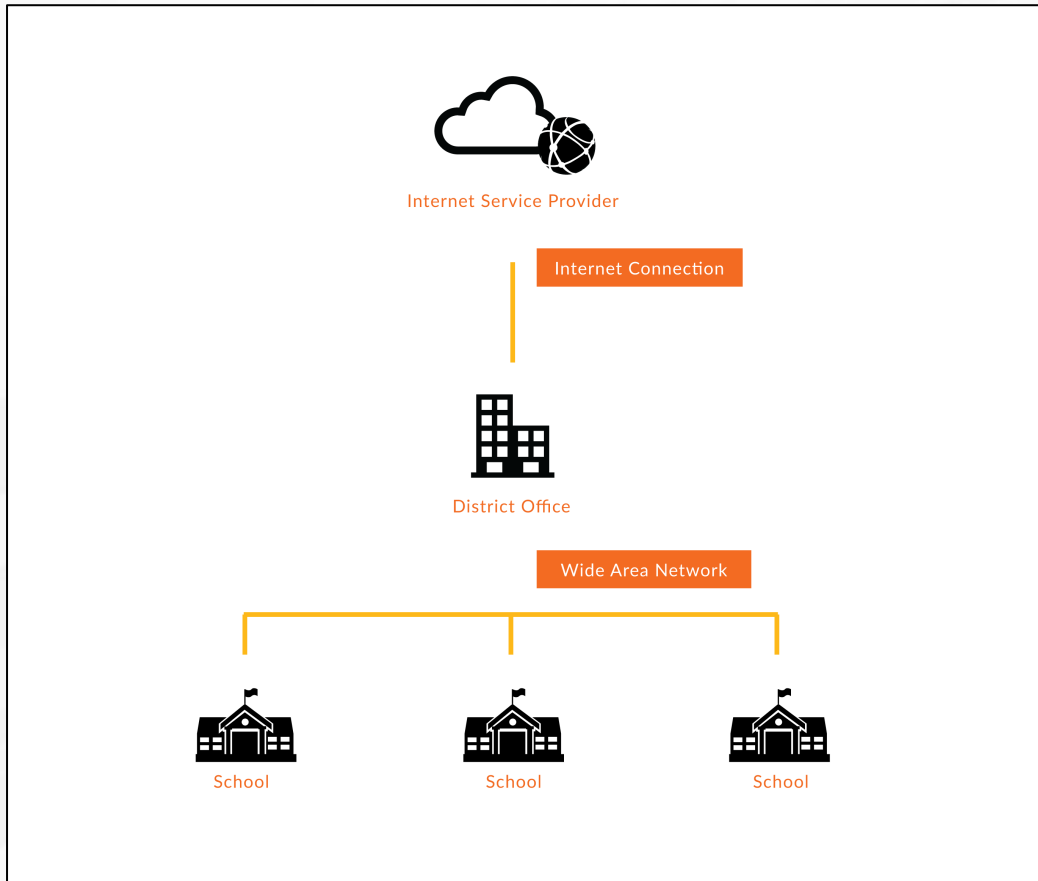
Do not choose IA Only (no circuit) for Internet access

The majority of broadband connectivity should be categorized under the Digital Transmission Service. This will allow you to choose a Product (Lit fiber, DSL, etc.)



Most common mistakes: FRN Line Items

(#6) Broadband purpose



**Identify HOW
the broadband
service is being
used within your
school or
district's
network
connectivity**

Most common mistakes: FRN Line Items

Purpose	Item 21 Service
Internet	<ul style="list-style-type: none"> Internet access ISP Services (transport to your school or district bought separately)
Transport	<ul style="list-style-type: none"> Wide Area Network (WAN) connecting your buildings A transport connection from your district office to your ISP (Internet access to your school or district bought separately)
Transport and Internet	<ul style="list-style-type: none"> A bundled service including both your Internet access and WAN, however you should be able to itemize your services. If unsure, please ask your service provider to itemize your services.



Most common mistakes: FRN Line Items

(#7) Itemize Services According to Purpose

Provide a separate Item 21 line item for Internet access as well as your Wide Area Network

Type of Service Requested	Digital Transmission Service
Type of Connection	Lit Fiber Service
Purpose	Transport and Internet
Qty or # of Lines	11

Most common mistakes: FRN Line Items

Item 21 for Internet access

Type of Service Requested	Digital Transmission Service
Type of Connection	Lit Fiber Service
Purpose	Internet
Qty or # of Lines	1
Bandwidth Upload Speed	1000
Bandwidth Upload Units	Mbps
Bandwidth Download Speed	1000
Bandwidth Download Units	Mbps
Burstable Bandwidth?	No
Firewall Protection Included?	Yes
Last Mile Connection?	No
WAN	No

Item 21 for Wide Area Network

Type of Service Requested	Digital Transmission Service
Type of Connection	Lit Fiber Service
Purpose	Transport
Qty or # of Lines	10
Bandwidth Upload Speed	100
Bandwidth Upload Units	Mbps
Bandwidth Download Speed	100
Bandwidth Download Units	Mbps
Burstable Bandwidth?	No
Firewall Protection Included?	No
Last Mile Connection?	Yes
WAN	Yes

Most common mistakes: FRN Line Items

(#8) Burstable

Burstable Bandwidth is the customer's ability to use more bandwidth, temporarily, than what is contracted for. Sometimes you may incur overage charges with this service. Ask your service provider.

Purpose: Internet

Burstable Bandwidth?	<input type="text" value="Yes"/>
Burstable Speed	<input type="text"/>
Burstable Units	<input type="text"/>

WAN	<input type="text" value="No"/>
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(#9) WAN (Y/N)

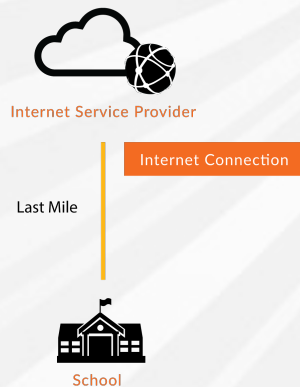
A Wide Area Network is the broadband connectivity between all of the schools within your district. This does not include the connection from the Internet to the district office.

Purpose: Transport

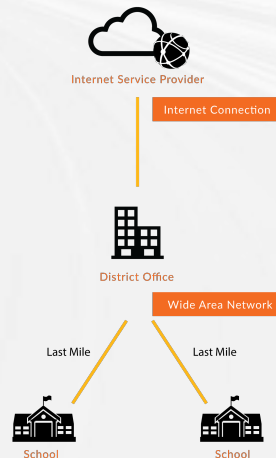
Most common mistakes: FRN Line Items

(#10) Last Mile

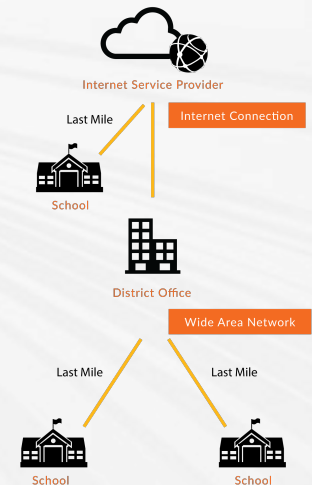
- A last mile connection as a connection to an individual building, such as a WAN connection OR a direct Internet connection for any school or library that does not have a WAN.
- The main Internet access connection from the service provider to a district hub DOES NOT qualify as a last mile connection.



Single School



School District



**School District
w/outlying school**

In summary

1. **Connectivity Q#1:** Calculate Mbps per 1000 users
2. **Connectivity Q#2:** Specify number of schools with fiber
3. **Category 1:** Determine Telecommunications vs Internet Access vs Voice
4. **Privacy Clause:** Choose no, unless you have documentation
5. **Service Type:** Choose Digital Transmission for most broadband services
6. **Purpose:** Identify how the broadband service is used
7. **Itemize your Services:** Separate Internet access from WAN line items
8. **Burstable:** Identify on invoice or check with your service provider
9. **WAN:** Choose Yes, only if service is “Transport” connections between buildings
10. **Last Mile:** Identify and assign connections

Next Step Resources

- Contact your ESD with district specific questions
- Read ESH FAQ
 - <http://www.educationsuperhighway.org/form-471-help/>
- USAC videos and newsletters
 - <http://www.usac.org/sl/tools/modernization-order/default.aspx>