May 2018

Minnesota K-12 Connect Forward Initiative

Broadband Task Force Meeting
Agenda

1. Initiative Progress + Highlights (25 min)
2. ESH + Federal Outlook (10 min)
3. K-12 Connect Forward Priorities (25 min)
Progress + Highlights
Background

Statute 116J.39 charges the Office with reporting on:

“information gathered from schools, libraries, hospitals, and public safety facilities across the state, determining the actual speed and capacity of broadband currently in use and the need, if any, for increases in speed and capacity to meet current or anticipated needs”

Questions we are trying to answer:

• What are K-12 schools currently buying and using for broadband connections?
• Are there gaps between what they need and what they have?
• Are we fully utilizing E-Rate funds?
• What role does the state TEA program play?
• Are our districts getting fair pricing?
• Are schools set for future needs?
To ensure that all students in Minnesota have access to scalable infrastructure, high-speed affordable bandwidth, and ubiquitous Wi-Fi for digital learning.
Overview of E-rate

- The E-rate program is operated by the Universal Service Administrative Company (USAC) under the FCC
- $3.9 billion is available annually for schools

E-rate funds K-12 broadband connectivity & infrastructure:

**Category 1**
INTERNET

- **INTERNET**
- Internet Access
- Wide Area Network (WAN)
- **SCHOOL DISTRICT OFFICE**

**FOCUS**
connectivity issues

**Category 2**
LAN/WI-FI

- **LOCAL AREA NETWORK (LAN)**
- **SCHOOLS**
- **CLASSROOMS**
- **DEVICES**
- Wi-Fi

**FOCUS**
infrastructure hardware & services
E-rate Adoption

FY2017 E-rate Applicants Across the United States

Data Collection Methods

- E-Rate applications (Form 471)
- District surveys
- METN working group + direct calls with consortia
- MN Charter School Association outreach + survey
Data Transparency: Price and Need

42 school districts in Minnesota need bandwidth or fiber upgrades

To make digital learning possible, the school districts on the map with yellow markers need a fiber upgrade or need to be upgraded to at least 100 kbps per student or 25 Mbps total bandwidth.
Minnesota Broadband Maps
Minnesota K-12 Connectivity

Connect all schools to scalable infrastructure.

Help districts cost-effectively obtain enough bandwidth to at least meet the FCC-adopted minimum goal of 100 kbps per student.

* 2018 data is an estimate based on preliminary review of this year’s Form 471
Minnesota School Districts are Closing the Gap

Only a handful of districts remain that are not meeting fiber and bandwidth metrics.

A larger volume may still have insufficient internal networks.

* 2018 data is an estimate based on preliminary review of this year’s Form 471
** Number of districts with Wifi need represents districts that have not used Category 2 funds. Data not measured prior to 2017 E-rate cycle
30+ school districts in the SWWC consortium represented nearly 100% of schools in the state with non-fiber connections

Consortium ran successful procurement to upgrade all schools to fiber with local provider, SDN

Upgrade impact:

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technology</strong></td>
<td>Microwave</td>
<td>Fiber</td>
</tr>
<tr>
<td><strong>Avg. Bandwidth per District</strong></td>
<td>100 Mbps</td>
<td>1 Gbps</td>
</tr>
<tr>
<td><strong>Avg. Cost/Mbps</strong></td>
<td>$18.40</td>
<td>$1.40</td>
</tr>
</tbody>
</table>
Broadband Affordability

To maintain momentum:
- Provider awareness
- Consortia support
- Data transparency

* Price benchmarks were chosen because at least 30% of school districts nationally were purchasing those circuits at those prices in 2015
Category 2 Support

- Identified districts that had **100%** Category 2 funds remaining
- Launched **marketing campaign** and conducted **targeted outreach** to build awareness of funding and eligible services
- Held 1:1 consulting calls with districts needing additional support to develop an **upgrade and procurement strategy**

Source: 2017 E-rate Data
Marketing and Communications

K-12 Connect Forward Website

K-12 Connect Forward Initiative
Overview
Launched in 2016, the Minnesota K-12 Connect Forward Initiative is a joint partnership between the Office of the Governor, the Minnesota Department of Education (MDE), the Department of Employment and Economic Development (DEED), and the non-profit EducationSuperHighway. Together, we are working to ensure that all students in Minnesota have access to scalable infrastructure, high-speed, affordable bandwidth, and ubiquitous Wi-Fi for digital learning.

"High-speed Internet has the potential to transform education by connecting students to resources and opportunities for beyond their classrooms. All Minnesota students deserve access to this essential building block in the 21st century." - Governor Mark Dayton

Supporting school districts
How we Support School Districts
We offer technical assistance, upgrade tools, and procurement resources at no cost to ensure your school district can afford what they need to take advantage of the promise of digital learning. Please check back regularly for updates, new resources, and stories from districts learning across the state.

Technical Assistance
Through the K-12 Connect Forward Initiative, EducationSuperHighway offers technical and procurement expertise to define sustainable and affordable Internet solutions for your school. Their process begins with getting a deep understanding of your technology needs. Next, they engage with the service provider community on your behalf to find your competitive options. Finally, they work with you to develop a strategy that supports your 6-year procurement process.

To get started, visit their website and schedule a 15-minute call.

Webinar Series
EducationSuperHighway webinar offers support for digital learning initiatives, supply information on their free tools, resources, and programs, and provide tips and best practices to help you navigate the rollout cycle.

MSBA Journal Feature

Digital Inequality is Educational Ineptitude
How a statewide initiative is working to close the K-12 connectivity gap in Minnesota

Charter School Survey

Minnesota Charter School Broadband Survey
The Minnesota K-12 Connect Forward Initiative is continuing its support to MN K-12 schools in upgrading their Internet access for digital learning. The Initiative is a coordinated effort between the Office of the Governor, the Minnesota Department of Education (MDE), the Department of Employment and Economic Development (DEED) and the national non-profit EducationSuperHighway.
ESH + Federal Outlook
ESH is on track to complete our mission by 2020

By 2020, all schools will have access to high speed Internet so that they can realize the promise of digital learning

In the next two years, how can we ensure that:

• Schools continue to receive adequate funding through E-rate

• Schools have support to take action as digital learning needs evolve

• Schools have access to affordable and scalable broadband
E-rate modernization has made digital learning a reality

35.2 M
More students gained access to the broadband they need in the last 4 years

88%
Of school report having sufficient Wi-Fi in their classrooms

78%
Decline in the cost of Internet access in K-12 schools

But we still have work to do.

2,049 schools still need fiber

Bandwidth needs are growing 50% year over year in districts using digital learning. Fiber is the only technology that can support this growing demand.
Red tape has led to delays and denials of fiber projects

Only 3 out of 279 Fiber projects received decisions by the Sep. 1 target date in 2017

Fiber projects are 7x more likely to be denied

56% of all denials were for reasons without merit

Over 750K students impacted

September 1st is the target date set by the FCC for USAC to issue funding decisions
K-12 Connect Forward Priorities 2018 and beyond
Moving forward, what is essential to ensuring that all Minnesota students have the infrastructure they need?
Some critical success drivers

Data
Robust data on school level connectivity and cost can help various stakeholders in planning, procurement and policy (consortia, TEA, B2B, etc.)

Consortia
School districts across the state have received a range of services and supports from consortia for over 20 years. What can be done to ensure that schools continue getting support with upgrades moving forward?

Charters, BIE and other entities
About 50% of charter schools leverage E-rate today. Bureau of Indian Education (BIE) schools, libraries and other educational entities are also E-rate eligible.

State Support
K-12 Connect Forward has partnered MDE, DEED, METN and other groups towards a common vision to ensure that all schools have the connectivity they need for digital learning. The state provides funding through Telecommunications Equity Aid (TEA) to help districts with connectivity. What are the right supports moving forward?

Other?
Thank you!
Progress

35.2 million more students gained access to the broadband they need in the last 4 years

97% of schools have the fiber-optic connections required to meet current and future connectivity needs

88% of schools report having sufficient Wi-Fi in their classrooms

The cost of K-12 Internet access has declined 78% in the last 4 years

Source: EducationSuperHighway data analysis
Upgrading your network is a year-long process. Get started early!

**E-RATE CYCLE**

**Summer**
- **START**
  - Funding year begins. Assess needs.

**Fall**
- **PLAN**
  - Design upgrade, plan and release E-rate 470/RFP

**Winter**
- **EVALUATE**
  - After 28-day window evaluate bids

**Spring**
- **AWARD**
  - Select provider & apply for E-rate funding (Form 471)

**Summer**
- **IMPLEMENT**
  - Funding commits issued. Upgrade network.