



Science, Technology and Telecommunications Committee

July 25, 2016

PSFA Presenters:

Ovidiu Viorica, Broadband Program Manager

Eric Moores, Broadband Project Manager

Partnering with New Mexico's communities to provide quality, sustainable school facilities for our students and educators.



Presentation objectives

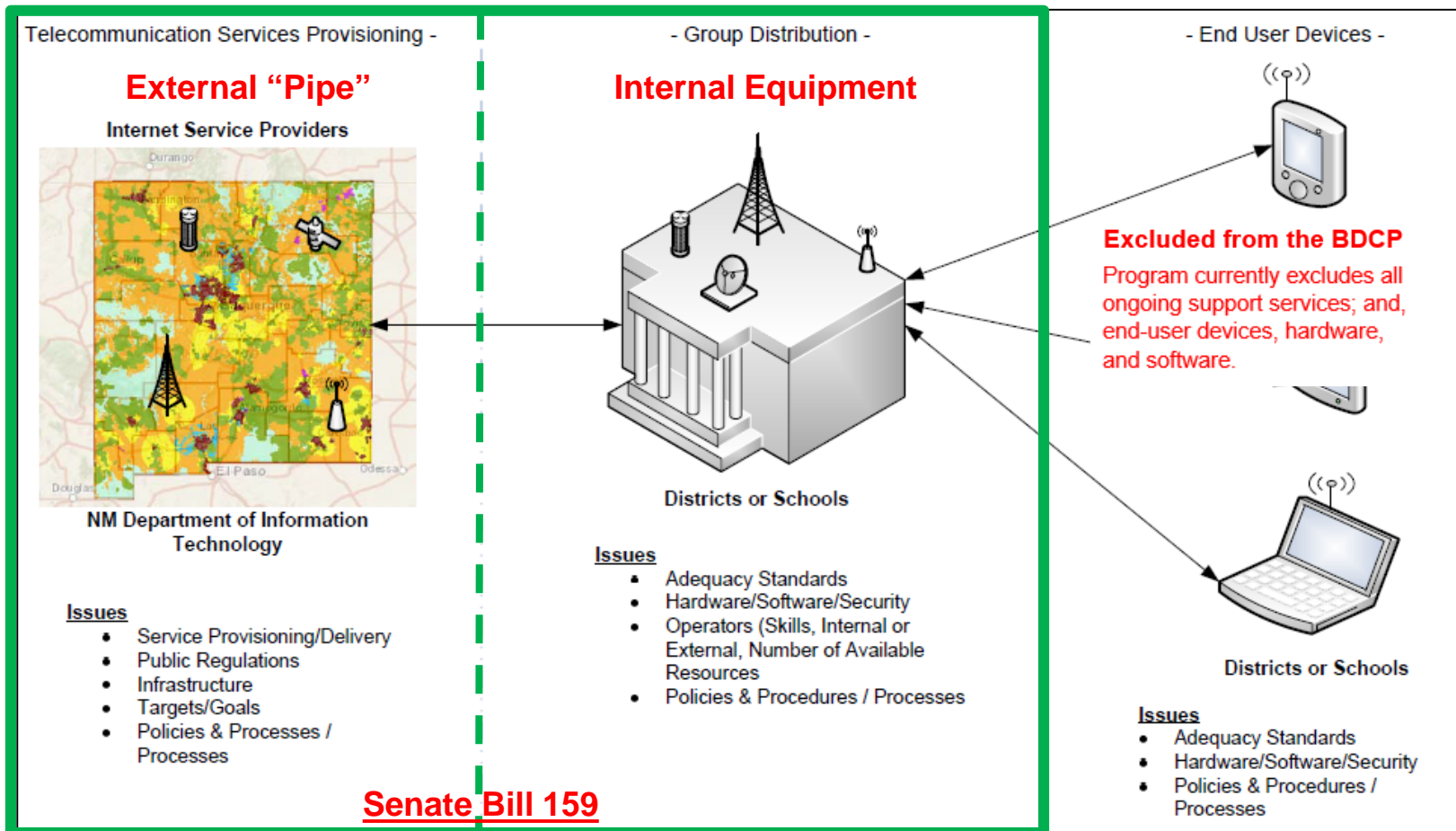
- Strengthen communication with other broadband priorities
- Inform on the schools broadband upgrades
- Connect school broadband upgrades to broadband statewide

Partnering with New Mexico's communities to provide quality, sustainable school facilities for our students and educators.



High-Level View

As displayed below, broadband originates from Internet Service Providers (ISP), is distributed to districts/schools and then reaches students via end-user devices. The green area is covered by the BDCP.



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FCC goals



GOALS

The FCC has adopted goals for K-12 connectivity. In this report we used the goals as a benchmark for where students are today

Purpose	2014	2018
Internet access	100 kbps per student/staff	1 Mbps per student/staff
District transport (WAN)	*1 Gbps per school	Scalable to 10 Gbps per school

More information: <https://www.fcc.gov/page/summary-e-rate-modernization-order>

*2014 WAN targets were recommended by SETDA, but the FCC did not adopt any short term WAN goals

Strength of broadband infrastructure



GOALS

Operational

External “Pipe”

Internal Equipment

INTERNET ACCESS
1 Mbps per student*

WAN
1 Gbps per school

Wi-Fi / LAN
1:1 in every classroom

Do districts buy enough Internet access to support their students?

Do schools have fast enough connections to their district hub?

Do schools have infrastructure for Wi-Fi?

31% of districts < 100 Kbps
100% of districts < 1 Mbps

72% of schools < 1 Gbps

92% of schools need upgrades (per HP report)



Internet



District office



Schools



Classroom

Sources: 2015 FCC Form 471 E-rate applications

Titles Added by PSFA

Fall 2015 - Program activities

1. HP Assessment of 841 school locations
2. CTC review of the school broadband circuits in the state and Gap Analysis report (<http://www.nmpsfa.org/it/bdcp.htm>)
3. Total amount encumbered or expended: ~\$2.9M
4. Not to exceed awards: ~10.6M (Based on estimates, actual amounts are being finalized, dependent on E-rate funding)



Spring 2016 - Program results

1. Fiber upgrades (PSFA):
 - Developed process and timelines for project development
 - RFP & E-rate assistance: ~30% increase (\$16M) in E-rate funding requests this year
 - PSCOC Awards to 17 Districts and 5 Charters (~60 schools) – see Progress table
2. Network equipment and WiFi upgrades (PSFA):
 - Master agreements (100+) in seven categories
 - Online Portal for equipment purchase (PED)
 - Reported Discounts: 40-50% off list prices
 - Requests for BDCP funding: Over 170 schools (to date)



Spring 2016 - Program results

3. Internet Affordability – DoIT & PED
 - Procurement Aggregation Model
 - Timeline follows E-rate Funding cycle

4. Ongoing sustainability of district equipment and Statewide Education Network – DoIT & PED
 - Consortium application
 - Procurement and contracting assistance
 - Education Network – added value



Spring 2016 - Program results: Network Equipment

1. 24 Districts (Albuquerque, Belen, Bernalillo, Bloomfield, Cobre, Dexter, Deming, Farmington, Floyd, Fort Sumner, Gallup McKinley, Grants-Cibola, Hatch, House, Logan, Los Alamos, Melrose, Mountainair, Penasco, Portales, Taos, Texico, TrC, West Las Vegas...)
2. 9 Charter Schools in Albuquerque, Aztec, Carlsbad, Deming, Espanola, Santa Fe and Taos
3. Additional funding requests pending





Goal: Meet the Governor's 1 Mbps per student benchmark by fall 2018

- Builds on the extensive work to date by the BDCP, the Broadband Mapping Project, etc.
- Fundamentals:
 - Optimize and maximize utilization of federal E-rate funding
 - Leverage aggregate demand and regionalized economies of scale
- Immediate effort: One year with three areas of focus
 1. Consultation (Districts, Schools, and Commercial Providers)
 2. Solution Engineering (Technical Architecture and RFP)
 3. Consortium Delivery (E-rate, Service Delivery)
- Out years: Sustainability and value-add

For a more detailed briefing, please contact Kendra Karp (DoIT): KendraL.Karp@state.nm.us

BB4E Website: <http://www.broadband4education.nm.gov/>

Rural Economic Development

Courtesy of Nebraska state broadband plan

Broadband-Related Development



Rural Economic Development

1. Schools, Libraries, Colleges, Health Care and other Community Anchor Institutions:
 - Broadband Infrastructure
 - Connectivity, Ideas incubators
 - Education & Training for a Skilled IT Workforce
 - Digital literacy
2. Broadband Availability:
 - Abundant
 - Reliable
 - Affordable



Rural Economic Development

Broadband Affordability – How to make progress:

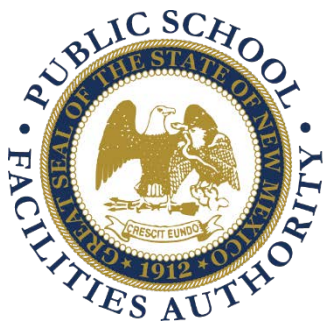
- Aggregate demand
 - ✓ Buy in bulk
 - ✓ Strong business case for providers
- Regional Aggregation
 - ✓ Bring Internet Access (IA) to the NM regions
 - ✓ Lower transport cost
 - ✓ Inclusion of local providers
- Neutral facilities
 - ✓ Increased competition



Conclusions

1. Establish Goals and Timeline
2. Use proven models
3. Measure Progress
4. Next Steps





BDCP

BROADBAND DEFICIENCIES
CORRECTION PROGRAM

Questions or Comments?

Public School Facilities Authority (PSFA)

PSFA team: Ruth Bingham, Eric Moores, Richard Govea

Ovidiu Viorica – Broadband Program Manager

visit: <http://www.nmpsfa.org/it/bdcp.htm>

or phone: 505-843-6272

