Celebrating 40 Years

Broadband Availability and Adoption: A State Perspective

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NRRI Colloquium
NARUC Summer Policy Summit
San Diego, CA – July 15, 2017
Today’s discussion will cover . . .

- **Broadband Overview**
  - Where is broadband available?
  - Who is adopting broadband?
  - What technologies are most prevalent?

- **State broadband initiatives**
  - Mapping service availability
  - Broadband commissions, partnerships, and state commission oversight

- **Broadband legislation**

- **Key issues facing state commissions**
  - Responding to the voice vs. data conundrum
  - Ensuring/measuring broadband adoption
  - Coordinating with extra-PUC organizations (broadband commissions, task forces, etc.)
Broadband availability is increasing, but coverage gaps persist

- Nearly 90% of Americans have wired internet access at speeds of 25 Mbps/3 Mbps or higher
  - 369.4M US internet connections as of June, 2016
  - 8% increase from the 342M connections in 2015
- 10% remain unserved or underserved, although deployment is improving
  - 55M consumers had no high speed access in 2015
  - 34M have no high speed access in 2016 – a 40% reduction
  - 12M students without access in schools
- Rural, tribal, and insular areas continue to lag behind
  - 39% of rural areas do not have fixed broadband access compared to 4% of urban areas
  - 41% of tribal areas do not have fixed access

(Data from FCC Internet Access Service Status Report, June 2016)
FCC is targeting the Connect America Fund (CAF) to bring coverage to unserved areas

- **Goal:** Provide targeted support to locations without “unsubsidized competitors”
  - Provide “reasonably comparable” service at “reasonably comparable” prices
  - Maintain voice service while increasing broadband availability
  - Minimize the USF contribution burden
  - Extend internet access at 25 Mbps/3Mbps to 7.3M users

- **83% of users without internet access are in former ILEC territory**
  - $9B offered to these carriers to extend service to these areas
  - $2B in unclaimed funds will be distributed via a reverse auction
  - Reverse auction will be technology neutral – includes mobile and satellite carriers

- **Additional funds for rural support, mobility fund, extremely high cost areas**

- **CAF monies create a single monopoly carrier in each unserved area**
CAF provides $4.5B in funding for underserved areas

$ in Billions; FCC data
Broadband availability does not necessarily translate to adoption

- Fixed broadband adoption has leveled off
  - 70% of adults had fixed broadband in 2013
  - 67% had fixed broadband in 2015
  - May signal a trend away from wired broadband to other technologies

- Mobile broadband helping to close the digital divide
  - FCC defines mobile broadband as 10 Mbps/1 Mbps, including 3G and LTE services
  - 70% of all broadband connections are now mobile
  - Broadband lifeline applications primarily from wireless carriers

- Mobile is not a panacea - 53% of rural Americans do not have access to wireless at broadband speeds

- CAF Mobility Fund may decrease this gap
Consumers are choosing among multiple technologies

Internet connections by technology

- Mobile Wireless: 69.2%
- Cable Modem: 18.4%
- FTTP: 8.3%
- aDSL: 3.2%
- All Other: 1.0%


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State broadband initiatives focus on the specific needs of their populations

- Broadband mapping
  - 50 states and DC created maps to identify providers, speed, availability
  - Initial funding from the American Recovery and Reinvestment Act (ARRA)
  - Some states have continued this effort, but the national map has not been updated since 2014

- State broadband offices and task forces
  - Determine state broadband priorities
  - Provide grants/loans for broadband build out
  - Enhance adoption efforts

- Statewide broadband networks
  - Use state assets to provide middle mile support
  - Create “open networks” to encourage broad participation
  - Create public/private partnerships

- Transfer state USF funds to broadband
California, Colorado, Minnesota, and New York (among others) provide models for state broadband initiatives.

- **California** – California Advanced Services Fund (CASF) - $315M (2016)
  - Provide infrastructure funding to bring broadband to 98% of CA households
  - Infrastructure grant and revolving loan account supporting 56 projects to bring broadband to over 26,000 unserved households - $275M
  - Public housing account - $7.6M for infrastructure; $1.9M for adoption
  - Rural and regional consortium fund - $15M grants to expand access and adoption
  - CA PUC manages the CASF and works with the CA Broadband Council to develop state broadband goals

- **Colorado** - Governor’s Office of Broadband Technology – OIT
  - Broadband Deployment Board includes representatives from PUC, industry, residents of unserved areas, and technical experts
  - Broadband Portal to identify available support
  - Strategy team to coordinate state broadband efforts
  - Funding from USF monies for areas with effective competition
Minnesota and New York also have robust broadband programs

- **Minnesota – Office of Broadband Development**
  - Provide all citizens with 25 Mbps/3 Mbps by 2022; 100Mbps by 2026
  - Border to Border broadband development grants - $20M (2017)
  - Focus on adoption as well as deployment through education, equipment, and training
  - Governor’s BB Taskforce has recommended adding broadband to the state Lifeline program (TAP)

- **New York – New York Broadband Program**
  - $500M in matching grants to companies participating in public/private broadband partnerships
  - Program rules mirror CAF II
  - FCC approved NY request to include unclaimed ILEC CAF funding in this program
  - PA, MA have requested similar funds transfer
2017 broadband legislation

- 34 bills proposed during the 2017 legislative session (as of 6/14/17)
  - 3 bills direct state USF funds to broadband
  - 11 bills create broadband grant programs
  - 6 bills address municipal broadband – extending (or limiting) municipal systems
  - 3 bills provide broadband deployment tax credits
  - 1 bill defines criteria for identifying “broadband ready communities”
  - 10 bills direct the PUC or a special task force to develop strategies for broadband deployment and adoption

- 13 of these bills have been enacted to date
  - New Mexico, Oregon, and Utah add broadband to the services supported by state USF funds
  - Idaho, Minnesota, New Mexico, and Wyoming fund broadband grants
  - Maryland and Nevada implement task forces to study broadband deployment
  - Indiana creates “broadband ready communities”
  - Kentucky establishes public/private broadband partnerships
  - Tennessee and West Virginia allow municipal broadband in areas without commercial providers

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<tr>
<th>State</th>
<th>Legislation</th>
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<tr>
<td>ID</td>
<td>SB 1034, Modify broadband improvement grant rules to remove open use req.</td>
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<tr>
<td>IN</td>
<td>HB 1626, Develop a procedure to promote BB-ready communities</td>
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<td>KY</td>
<td>HB 343, (Ch 89) Establish public-private broadband partnerships</td>
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<td>MD</td>
<td>SB 717, Rural internet task force</td>
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<tr>
<td>MN</td>
<td>SF 1937, Border to border broadband grants</td>
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<tr>
<td>NM</td>
<td>SB 308, Use State USF funds for rural broadband</td>
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<tr>
<td>NM</td>
<td>SB 24, Broadband Grants to Local Governments</td>
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<tr>
<td>NV</td>
<td>SB 53, Broadband strategic plan</td>
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<td>OR</td>
<td>HB 2091, USF funding for voice and broadband</td>
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<td>TN</td>
<td>SB 1215, BB grants; electric co-ops may provide SVC in unserved areas that have not received other funding</td>
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<tr>
<td>UT</td>
<td>SB 130, Provide USF support for BB</td>
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<tr>
<td>WV</td>
<td>HB 3093, Re-establish BB Council; allow municipal broadband</td>
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<tr>
<td>WY</td>
<td>HB 253, Provide $25M to fund economic investment, including tech projects</td>
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State commissions face three key issues as broadband deployment increases

- As broadband replaces voice as the primary focus of the federal universal service program, how should the states respond?
  - Update state USF programs to include broadband
  - Support Broadband Lifeline, both standalone and bundled services
  - Identify potential rule changes to simplify broadband deployment

- How can state commissions measure and improve broadband adoption, particularly in rural areas and areas with lower economic status?
  - Reinvigorate broadband mapping programs
  - Include adoption as a map component
  - Implement broadband crowd-sourcing tools like North Carolina and Virginia

- How should state commissions work with broadband commissions, government task forces, and separately constituted broadband authorities to manage broadband deployment and adoption?
  - State utility commissions understand the key needs of their constituents
  - Provide input where possible
  - Reach out to legislators, task forces, and industry to create joint programs to support broadband deployment