TN | Department of
Economic &
Community Development

STATE OF TENNESSEE

TNECD Broadband Initiative

8/31/2016

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Why did TNECD launch a broadband initiative?

- Our communities told us this is something they need.

- Broadband is essential to our ability to compete economically.

- There was a lack of agreement in the industry about the problem and potential solutions.

- We needed a path forward.

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Goals of TNECD's Broadband Initiative

- Define Broadband

- Determine Penetration Rate

- Calculate Costs

- Best Practices from Other States

**OVERALL: Define the Problem and
Provide a Menu of Options for the State**

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Consultants

strategic
networks group

⊹NEOCONNECT

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Statewide Broadband Assessment

23,315 responses

Broadband Assessment

Select an option below to take the assessment

- Household Responses
  - Total: **17,776**
  - Average per county: 187
  - Lowest: 10
  - Highest: 811

- Business Responses
  - Total: **5,539**
  - Average per county: 58
  - Lowest: 5
  - Highest: 636

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Definition of Broadband

- 25 Mbps download / 3 Mbps upload
- Definition must reflect not only current but also foreseeable demand
  - The most frequently cited barrier to increased household utilization of the Internet is the speed and reliability of the service.
  - Satisfaction correlates with the speed of the service.
  - For businesses, utilization correlates with upload speeds. Businesses need at least 3 mbps upload speed to be actively engaged.

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Penetration Rates

- FCC says 87% of Tennesseans have access to 25/3 broadband
  - Only 2% of urban citizens lack access while 34% of rural citizens lack access

- Speed tests from TNECD Assessment show only:
  - 31% of businesses received 25/3 broadband
  - 24% of households received 25/3 broadband

- Speed and Reliability:
  - Reliability is the most highly rated (more than speed or cost) attribute of internet service by businesses and households.
  - Over half (54%) of households are connected with lower performing connectivity types (DSL, mobile wireless, satellite, and dial-up).

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Cost to Solve the Broadband Problem

- This is a **$500M to $1.7B problem** depending on type of connectivity.

- Cost to building fiber to the premise to households without 25/3 service:
  - $1,117,397,500 - $1,716,322,560

- Cost to build fixed wireless to households without 25/3 service:
  - $491,654,900 - $1,358,755,360

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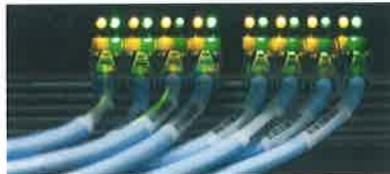
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Considerations from Other States

- Strong public leadership that champion broadband projects

- State broadband office or similar entity

- Effective partnerships

- Public seed funding and grant programs to encourage investment and build out

- Transparency

- Proper planning and due diligence

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Economic Impact of Broadband

- Tennessee's economic future is directly tied to our broadband access and use.
- Our assessment showed:
  - **66%** of revenues were enabled by the internet
  - **43%** of net new jobs were enable by the internet
  - **34%** of businesses said broadband was essential to selection their location
  - **56%** of businesses said broadband was essential to remaining in their location
  - **16%** of Economic Development Organizations said companies frequently chose not to locate in an area because of broadband access

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Utilization

- Broadband Internet enhances earning ability of households and provides employment and training opportunities.
  - 23.5 percent of participating households run a home-based business
  - Telework is also an important Internet enabled activity, with almost 26 percent of participating households teleworking
  - Over 36 percent of households in Tennessee reported additional household income from using the Internet with 20 percent of households reporting at least $5,000 per year in additional income.
- Actual utilization of the Internet varies notably across the state for businesses and households correlating with:
  - economic status of the community,
  - population density, and
  - the type and speed of connection.
- The largest barriers to greater Internet use for businesses are concerns over security and privacy, while for household the greatest barriers are the reliability and speed of the connection.
- 75 percent of households want to improve how they use the Internet.

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QUESTIONS?

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