Broadband Update

Presentation to the Buncombe County Board of Commissioners

May 4, 2021







- What we know
- Updates
 - Workgroup
 - RFP
- What's next?





What we Know - Importance

Internet Access is Limited

- Access: 10%* of survey respondents do not have access to high speed internet.
- Accessibility: 75%* say the service is inadequate and 45% too expensive.
- Internet Access is Important
 - Internet Utilization: 60%* use for education and 35% for business activities.
 - **COVID-19 Impact:** Residents unable to complete many functions without access to the internet.

*Note: Based on the Buncombe County Broadband internet survey (n = 2,600).

What we Know - Challenges

• Costs:

- Terrain impacts construction costs.
- Lower population density impacts ability to "spread" costs across users.
- Primary costs include "make ready" work for existing poles and laying fiber.

• Statutes:

- Local governments can only construct internet infrastructure for operations.
- NCGS 153A-459 allows Counties to expand infrastructure with a provider RFP.
- Counties shall not provide internet service, own infrastructure unless for governmental purposes, or sell/lease infrastructure.

• Data:

- FCC maps for "unserved" populations are incomplete.
- Infrastructure and provider service maps are proprietary.

Key Activities

- Completed Actions:
 - Community Profile and Asset Inventory
 - Community Survey
 - Provider Meeting (November 2019)
- Ongoing Actions:
 - Buncombe Broadband Workgroup Established (September 2020)
 - Broadband RFP Issued (December 2020)





Buncombe Broadband Workgroup

- **Purpose:** Short-term workgroup of local experts to develop and evaluate the Buncombe Broadband RFP.
- Workgroup Members: School Systems, Land of Sky, NCDIT, HACA, Community Members
- Guiding Principles:
 - Priority/Focus: Solutions must address access and accessibility issues.
 - Technology: Solutions should be technology "neutral".
 - Timing: Solutions that meet immediate and long-term needs.
 - Resources: Attract investment/resources from the State, Federal, and other sources through input and advocacy.
- Key Activities: provider interviews, reference checks, proposal evaluation



Buncombe Broadband RFP

• Goals:

- **Scope:** County-wide, prioritizing unserved areas
- Existing Assets: Utilize existing County assets (e.g., towers, buildings) to reduce cost
- **Technology Neutral:** In compliance with NCGS, define technology requirements, but not specific types of technology (e.g., fiber, fixed wireless).
- Affordability: Provide affordability plans for low income residents.

Technology Requirements:

- Preferred Speed: Residential: 100 x 10 Mbps; Commercial: 100 x 100 Mbps
- Minimum Speed: Residential: 25 x 3 Mbps; Commercial: 25 x 25 Mbps
- Latency: 70 milliseconds latency or less
- Technical Sustainability: Speed: Achieve at least >100 Mbps within 2 to 3 years and 1 Gbps service within a decade; Latency: Reduce customer latency by 25% or more in 3-5 years and 50% or more in 5-10 years.
- Data Cap/Usage: Include plan details (e.g., thresholds, throttling) per subscriber level





Technology Discussion





BUNCOMBE COUNTY

What's Next?

- Proposal Review (ECD: May)
 - Initial Response
 - Addendum
- Provider Interview and Q/A, 2nd Round, (ECD: May)
- Contract Negotiation (ECD: June)
- Presentation to the Board (ECD: July)





Upcoming Opportunities

• Grant Funds

- American Rescue Plan: Local Fiscal Recovery Fund, Coronavirus Capital Projects Fund (CCPF)
- North Carolina GREAT Grant: impact to Sandy Mush
- Rural Digital Opportunity Fund (RDOF): impact to Broad River

• North Carolina Legislation

- SB689: allows utilization of restricted grant sources (i.e., ARP funds) and local government construction and lease of infrastructure
- SB547: allows local government construction and lease of infrastructure

• Evolving Technologies

- Starlink (satellite)
- 5G (cellular)
- Partnerships with private, public and other organizations



Questions





Appendix





Statutory Requirements

- S.L. 2011-163: Authorized counties to provide grants to providers for the purpose of expanding service in unserved areas.
- The act specifically states that the County cannot provide High Speed Internet Service. Only applicable to Nash County.
- In 2012, the General Assembly expanded SL 2011-163 to all Counties with some additional requirements regarding the awarding of the grant.
- The prohibition of Counties not becoming an internet provider remained.
- Effective January 1, 2021, this session law becomes codified as N.C. Gen. Stat. 153A-459.

Technology Impacts



Technology Definitions

- Broadband: The term broadband commonly refers to high-speed internet access that is always on and faster than traditional dial-up access. Broadband includes several high-speed transmission technologies, such as fiber, wireless, satellite, digital subscriber line (DSL), and cable.
- Fixed Broadband: High-speed data transmission to homes and businesses using technologies such as T1, cable, DSL, fiber, and fixed wireless. This category excludes mobile broadband and non-terrestrial services.
- Mobile Broadband: A type of internet connection designed for "on-the-go" use, with seamless connectivity from one geographic location to the next. Examples of mobile broadband providers include, but are not limited to, AT&T, Verizon, T-Mobile, and Sprint, among others.
- Cable Modem System: Cable television companies have offered internet access via their cable system for more than a decade. The network architecture uses a loop that connects each subscriber in a given neighborhood, meaning they all share one big connection to the internet. Examples of cable broadband provider include, but are not limited to, Charter, AT&T, among others.
- DSL (Digital Subscriber Line): A form of technology that utilizes a two-wire copper telephone line to allow users to simultaneously connect to and operate the internet and the telephone network without disrupting either connection. Examples of DSL providers include, but are not limited to AT&T, CenturyLink, Earthlink, Frontier, among others.
- FTTH or FTTP (Fiber to the Home or Fiber to the Premise): The delivery and connection of fiber optics directly to a home or building. Examples of fiber to the home broadband providers include, but are not limited to, AT&T Fiber, Frontier, and Google Fiber, among others.
- Fixed Wireless Broadband Access: The use of wireless devices or systems in connecting two fixed locations, we are not limited to SkyRunner. Uscellular among other

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