Broadband 101

Broadband – Resources & Efforts at the Federal Level
Broadband 101 — Federal

Federal Communications Commission
fcc.gov
- Promote competition, innovation & investment in broadband
- Manage spectrum
- Mapping (Form 477 Data)
- Broadband Deployment Advisory Committee
  - (Disaster Response & Recovery Working Group)

Universal Service Administrative Company
- Schools & Libraries (E-rate Program)
- Rural Health Care Program
- Lifeline Program
- High Cost Program (Connect America Fund)
Broadband 101 – Federal

Definition of Broadband

Multiple technologies, multiple industries, built with different purposes sometimes, differing laws and sometimes different services

• Telcos
• Cable
• FTTH
• Fixed Wireless
• Cellular/Mobile
• Satellite
Broadband 101 – Federal

FCC - Form 477 and Other Data

Data & Reports:

- Fixed Broadband Deployment Data
- Mobile Broadband and Voice Deployment Data
- Internet Access Services Reports
- Voice Telephone Services Reports
- Broadband Progress Reports
- Additional Form 477 Data
- How State Commissions Can Obtain Form 477 Subscription Data

Source: https://www.fcc.gov/
Fixed Broadband Deployment Data from FCC Form 477

Who Files What?

- All facilities-based broadband providers are required to file data with the FCC twice a year (Form 477) on where they offer Internet access service at speeds exceeding 200 kbps in at least one direction.
- Fixed providers file lists of census blocks in which they can or do offer service to at least one location, with additional information about the service.
- Mobile providers file maps of their coverage areas for each broadband technology (e.g., EVDO, HSPA, LTE). See Mobile Deployment Data.

Related Links
- Interactive Map
- Explanation of the Data
- Mobile Deployment Data
- Fixed Broadband Technology Codes
- Form 477 Resources
Broadband 101 – Connect America Fund

- Deployment of service is based on Return on Investment (ROI)
- No entity can force an ISP to deploy or upgrade infrastructure
- Some funding available through Connect America Fund

The FCC offers this fund as a subsidy to major providers to construct 10 Mbps down/1 Mbps up broadband networks in areas currently unserved with internet service. The following table from the FCC identifies four carriers that accepted Phase II CAF in North Carolina:

<table>
<thead>
<tr>
<th>ISP</th>
<th>Homes &amp; Businesses Served</th>
<th>Support Amount in Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T</td>
<td>13,139</td>
<td>$3,498,889</td>
</tr>
<tr>
<td>CENTURY LINK</td>
<td>36,159</td>
<td>$10,008,390</td>
</tr>
<tr>
<td>FRONTIER</td>
<td>11,981</td>
<td>$3,596,156</td>
</tr>
<tr>
<td>WINDSTREAM</td>
<td>6,988</td>
<td>$1,952,082</td>
</tr>
</tbody>
</table>
Broadband 101 – Federal

National Telecommunications and Information Administration
- US Department of Commerce
- Advise the President on telecommunications and information policy issues

* Broadband USA
* Broadband Interagency Working Group
* FirstNet
Broadband 101 – Federal

National Telecommunications and Information Administration
• US Department of Commerce
• Advise the President on telecommunications and information policy issues

Broadband USA
broadbandusa.ntia.doc.gov
• One shop for broadband information around the federal government
• National convener (State Broadband Leaders Network)
• Publications, Funding Information, Data, Webinars, Federal, and State Resources

Broadband Interagency Working Group
ntia.doc.gov/category/broadband-interagency-working-group
• Federal interagency coordination – co-chair with USDA- Rural Utilities Service*
• Assists in reducing regulatory barriers
• Promotes awareness of broadband investment & digital inclusion programs
• Collects & shares information about federal resources for deployment & digital inclusion programs
NTIA and FirstNet (First Responder Network Authority)
firstnet.com

• Nationwide Public Safety Broadband Network (NPSBN)
• LTE data network dedicated to first responders
• AT&T was chosen to build out the network
• State of North Carolina opted into participating with the national effort
• Single Point of Contact (SPOC) within states
• Applications, devices, location services, deployables
Broadband 101 – Federal

Advanced Technologies

Applications

Devices

FirstNet
Broadband 101 – Federal

US Department of Agriculture

Co-Chair Broadband Interagency Working Group

Rural Utilities Service / Rural Broadband Programs

• Telecommunications Loan Program
• Farm Bill Broadband Program
• Community Connect Grants
• Distance Learning & Telemedicine Grants
Broadband 101 – Federal

US Department of Agriculture
Rural Development

Rural e-Connectivity Pilot Program (ReConnect Program)

NEW - $600m in federal funds for rural broadband loans and grants

http://reconnect.usda.gov
Broadband 101

Broadband – Resources & Efforts at the State Level
The Broadband Infrastructure Office

Community

Policy

Programs and Tools
Technical Assistance Regions

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East
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Region

- West
- Central
- East

Broadband Infrastructure Office
Welcome to the Community Broadband Playbook
<table>
<thead>
<tr>
<th>Incentivize investment/reduce barriers:</th>
<th>Close the 'homework gap'</th>
<th>Create community-based adoption &amp; utilization programs and initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next-generation infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance public safety and first responder connectivity</td>
<td>Integration of broadband into economic development strategies</td>
<td>Leverage telehealth technologies</td>
</tr>
</tbody>
</table>
Policy Considerations

County authority to build and lease infrastructure is somewhat grey. Bill introduced in the past to clarify and allow broader authority to grant money.

Municipal authority based on S.L. 2011-84 (H129). Cities can build and operate for municipal purposes and offer free service to public. Some cities: excess capacity is surplus property and can be leased; bills in NCGA to clarify including S.L. 2018-5.

Small Cell Siting – S.L. 2017-159 outlines requirements/sets fees and timelines for permit approval. NCLM and UNC School of Government = resources.

GREAT Grant Legislation includes municipal leasing & state property use.

Electric Membership Cooperatives
Tools:
NCBroadband.gov/map

IS YOUR AREA REPRESENTED CORRECTLY?
In an effort to identify the pockets of unserved and underserved areas around the state, we have launched a new user-reporting tool. We want to make sure that the information that we have for homes and businesses around the state is as accurate as possible and getting your feedback is critical to that. This helps us develop strategic plans for improving connectivity in your area.

ADD YOUR INFORMATION

Broadband Infrastructure Office User-Reporting Tool Walk Thru
Leading Digital Equity and Inclusion Efforts

1. Device Refurbishers
2. Regional Leaders
3. Non-profits
4. MCNC
5. State Agencies
6. Friday Institute
First Responder Emerging Technologies Program

- Focuses on the impact to the first responder disciplines because of up-and-coming hardware and software changes.
- Adopting new technologies can impact operational, financial, or policy considerations for the agency.
- These changes have recently been accelerated by the Nationwide Public Safety Broadband Network (NPSBN), also known as the FirstNet Network.
- Program Staff are former and current first responders also having experience in the emergency management field.
How do we help?

- Providing adjunct technology exploration support
- Collaborating with subject matter experts (first responder and industry)
- Addressing cybersecurity issues, connectivity needs, interoperability with existing and emerging systems, and other challenging/threatening topics
- Collaboration across state agencies and departments

Red Grasso, Director/FirstNet SPOC; Charles Laird, Program Specialist
firsttech@nc.gov
Broadband 101 – State


Growing Rural Economies with Access to Technology

GREAT Grant Program
Growing Rural Economies with Access to Technology (GREAT)
• New Program
• Tier One Counties
• Areas with less than 10/1 Mbps
• Eligible Applicants are Broadband Providers

To expedite terrestrial deployment of broadband, by encouraging partnerships and competition between private broadband providers and cooperatives…and lease of State and local-government owned properties or facilities
GREAT - Baseline Data for Identifying Eligible Areas

Tier One counties

Census block boundaries

Census blocks with less than 10/1 Advertised Speeds

Mapped GIS layers available for download
# Broadband 101 – State

**GREAT Grant Program Overview**

<table>
<thead>
<tr>
<th>Legal Applicant Internet Service Provider</th>
<th>Proposed projects only in Tier 1 Counties</th>
<th>Proposed project areas must have less than 10/1 Mbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide minimum speeds of 10/1 Mbps</td>
<td>Matching funds required</td>
<td>A single grant award shall not exceed $2,000,000</td>
</tr>
<tr>
<td>Deployment of speeds of 25/3 Mbps or greater is encouraged</td>
<td>No more than one grant award per county (applications should target one county)</td>
<td>5-Year Service Agreement (including deployment period)</td>
</tr>
</tbody>
</table>
Important Dates

Launch of Grant Application Portal: November 9, 2018

Applications Due: February 1, 2019

BIO Initial Review – Vetting for Completeness & Basic Eligibility: early February

Public Posting & Protest Window (30 days): mid-February to mid-March

Final Application Review/Scoring: late March

Award Letters & Contracts Executed: March to April

Leveraging State Assets for Broadband Deployment

“...The State shall allow the collocation, installation, and operation of equipment by a broadband provider on any existing structure owned by the State and shall lease real property, or grant an easement of license with an interest in real property, for the purposes of construction and placement of broadband infrastructure on State land...”
## Broadband 101 – State

<table>
<thead>
<tr>
<th>DIT/DOA Partnership</th>
<th>Developing Processes</th>
<th>Leasing Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected fees would go into GREAT grant fund</td>
<td>Assets will be leveraged for deployment/access points</td>
<td>Currently reviewing leasing processes for VIPER Towers and UNC-TV Towers</td>
</tr>
</tbody>
</table>

**Leveraging State Assets**