



Office of the Secretary of Technology

Broadband Roundtable – Broadband, *Virginia Style*



Karen Jackson

Deputy Secretary of Technology

April 26, 2011



Commonwealth Broadband Roundtable

Broadband: *General Observations*

- Access to affordable broadband service is no longer an option, it is a imperative
- There is no single technology that will solve the Commonwealth's last mile issues
- Accurate mapping of service availability is key to future success
- Communities (as a general rule) do not fully leverage readily available assets and funding sources when planning a broadband deployment
- Communities are just beginning to understand the legal and funding mechanisms available to facilitate community led initiatives (PPEA, Wireless Authority, VRA)



Commonwealth Broadband Roundtable

Broadband – *Virginia Style*

- **Office of Telework Promotion and Broadband Assistance** Established by EO 35, 2006 (codified 2008)
- **Commonwealth Broadband Roundtable** launched September 2007
 - Co-Chaired by (then) Secretary of Technology, Aneesh Chopra and Senator Mark Warner
 - Comprised of experts from academia and industry, state/local/regional leaders, legislators, state agency representatives
 - Five sub-committees formed to address specific elements of the broadband equation – adoption/availability, technology, applications, business models and outreach
 - Finalized Activities, September 2008
- **Broadband Council** (recommendation from Roundtable) enacted July 1, 2009
 - 11 members, Senator Puckett, Delegates Byron, May, and Phillips, 2 ex-officio members Secretaries of Technology and Commerce and Trade and 5 citizen members.



Commonwealth Broadband Roundtable

“21st Century” Mapping Strategy to Empower Decision Making



VA Mapping Initiative In Brief

Goal: Establish a baseline of broadband service availability across the Commonwealth

Voluntary Reporting: Carriers voluntarily agreed to participate in the process with broad stakeholder support – at no cost to the taxpayer

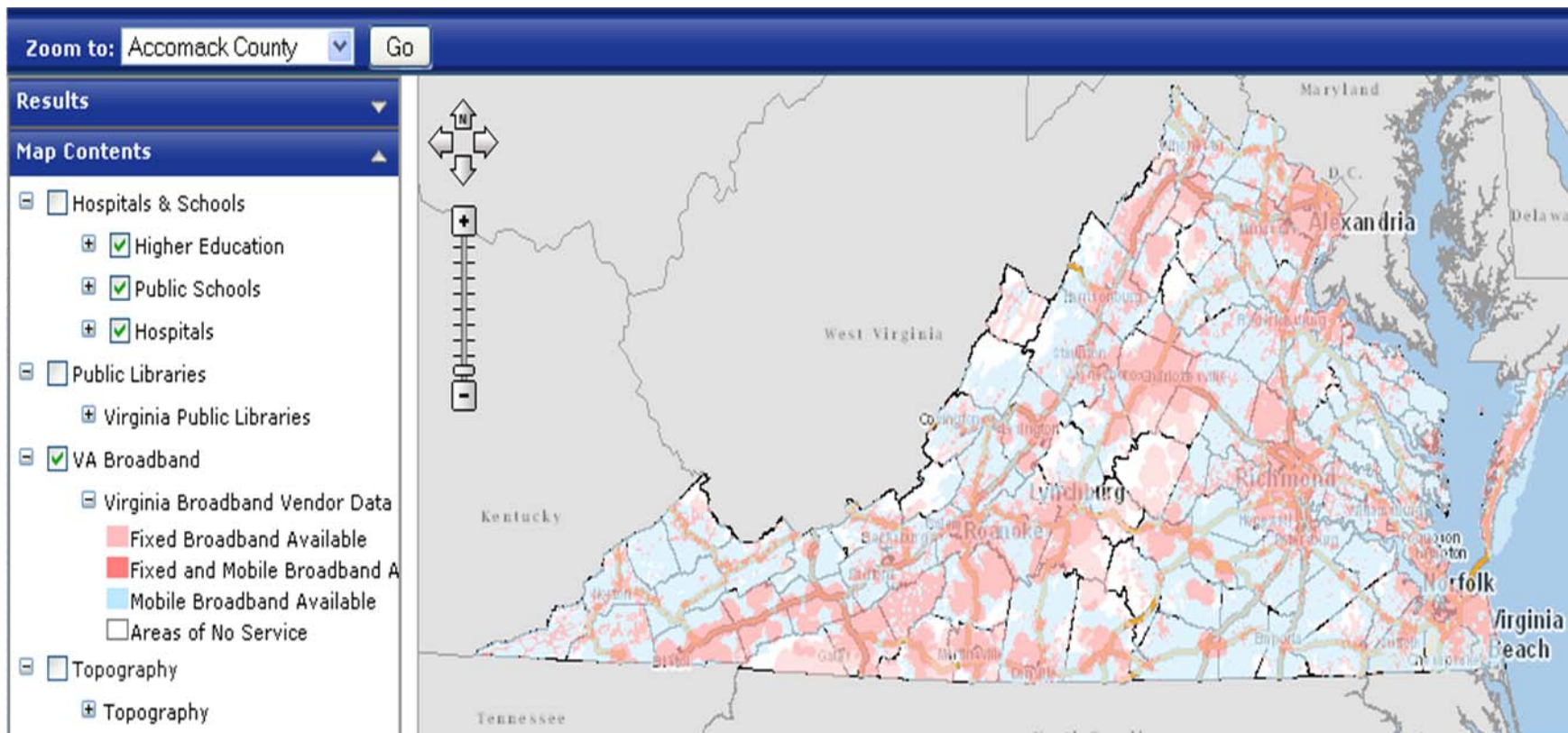
Respecting Market Privacy: Through Virginia’s CIT, carriers protected against risk of competitive disadvantage due to data loss

Address-Level Data: Virginia has a process in place to collect and map geo-coded address-level broadband availability data and geo-spatial and demographic information displayed at the County/census block level - at no additional cost



Commonwealth Broadband Roundtable

Commonwealth Broadband Availability Map Phase I



“Phase I” of Broadband Availability Map launched in May 2009; developed at no additional costs to VA tax payers. *Second Generation map to be released May 2011.*



Commonwealth Broadband Roundtable

Broadband Mapping, Planning and Demand Generation Funds

Awarded:

- Center for Innovative Technology – VA state designee for mapping initiatives with NTIA in conjunction with the Office of Telework Promotion and Broadband Assistance and the Secretary of Technology's Office
- CIT awarded **\$1.8 million for broadband mapping** by NTIA (March 2010). Partners include the Virginia Geographic Information Network and Virginia Tech. Purpose: to build on the initial map published in 2009, provide additional verification and validation, and align VA data with requirements for National Broadband Map (2011).
- CIT awarded **\$500,000 for broadband planning** to include health IT and e-commerce usage mapping

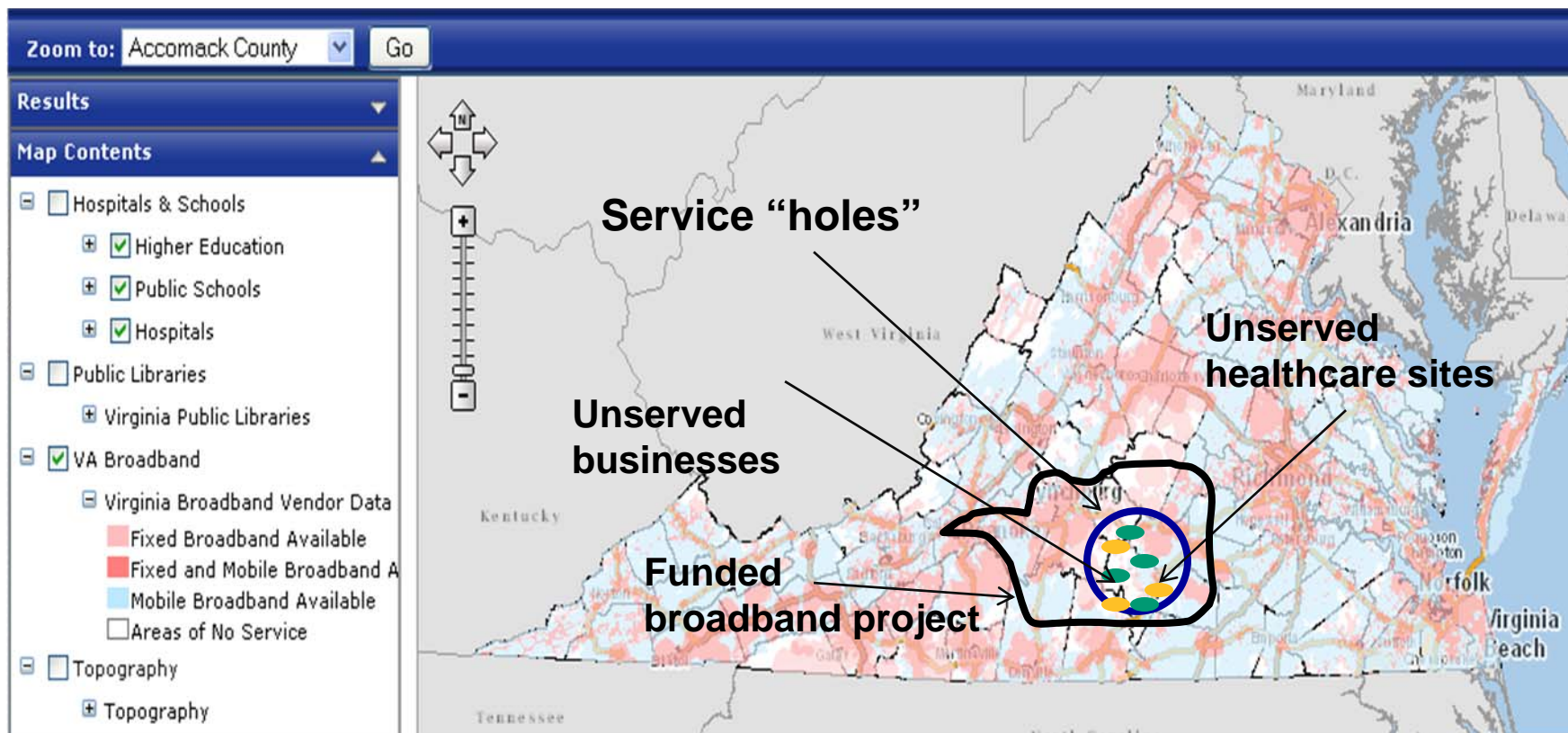
Recent Approval from NTIA (approx \$5.8 million)

- Expanded Broadband mapping \$2,123,964
- Capacity Building (expansion of health/e-commerce planning initiatives and staff) \$1,435,877
- Technical Assistance (Education and training) \$1,000,000
- Technical Assistance (Broadband mapping for tribal lands) \$1,200,000



Commonwealth Broadband Roundtable

Next Gen Commonwealth Broadband Availability Map



“Phase II” of Broadband Availability Map - Based on NTIA data collection format with overlays for e-commerce and healthcare



The Disconnect...

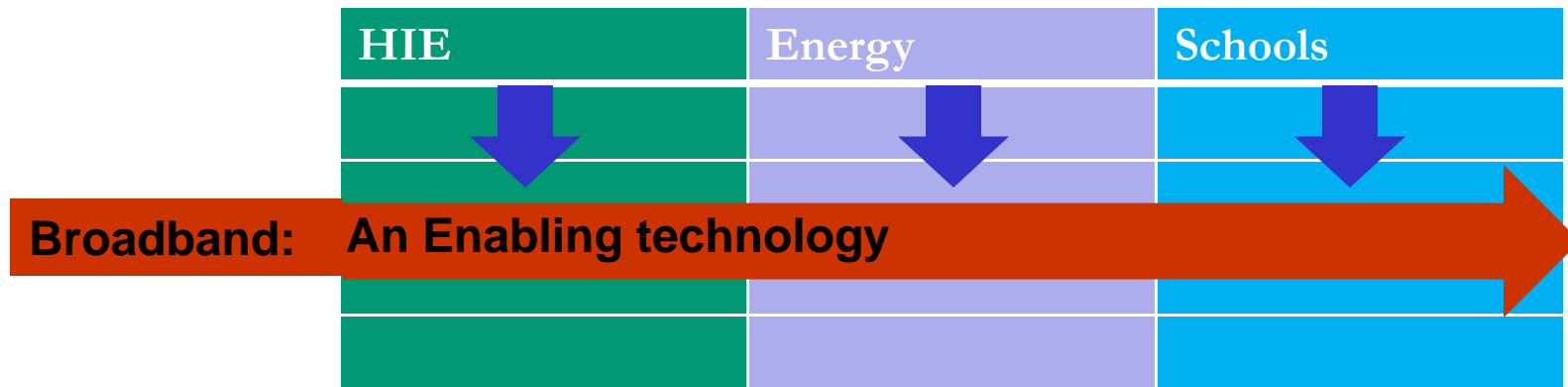
HIE	Energy	Schools	Broadband
↓	↓	↓	↓

- **Silo – based approach**
- **Difficult/impossible to identify overlap/duplicative funding**
- **Failure to recognize interdependencies**

- **Incumbent on states to provide coordination/collaboration**



The Virginia Model...



- **Cross-functional/collaborative approach**
- **Attempting to identify overlap/duplicative funding (increase leverage)**
- **Ability to recognize interdependencies**

- **State level (voluntary) coordination/collaboration**



Commonwealth Broadband Roundtable

Community Toolkit “At A Glance”

www.wired.virginia.gov

- **Is your community “house” in order?**
 - Comprehensive and Land Use Documents
 - Broadband friendly zoning
 - Expedited permitting processes
 - Fees/Charges
- **What are you trying to do?**
 - Who are you trying to connect?
 - **What applications are of interest – now and future?**
 - Who will lead the initiative?
- **How do you do it?**
 - Assessing assets and demand for services
 - Determine desired technology
 - Evaluate deal structure options (wireless authority, PPEA, Public-Private Partnerships, contract, etc)
- **Business Case Analysis and Funding**
 - Reallocate existing telecom spend and “in-kind” contributions (rights of way, towers, tanks, etc.)
 - Evaluate and leverage grant opportunities (existing and future)
 - Leverage VRA funding mechanisms

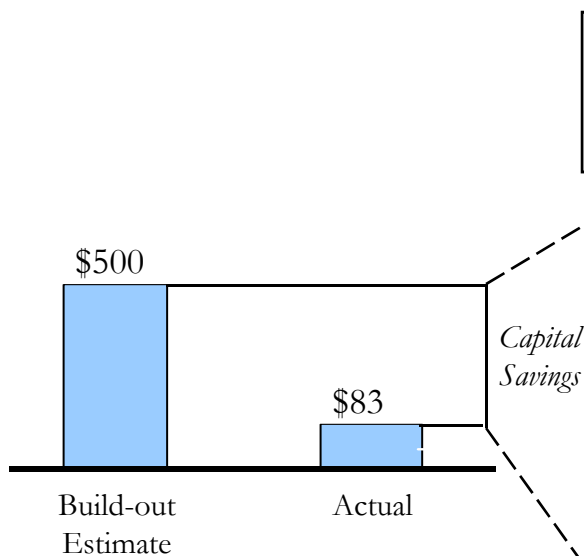


Commonwealth Broadband Roundtable

Putting it All Together: *County Signs Public-Private Partnership to Address Underserved Areas*

Capital Investment

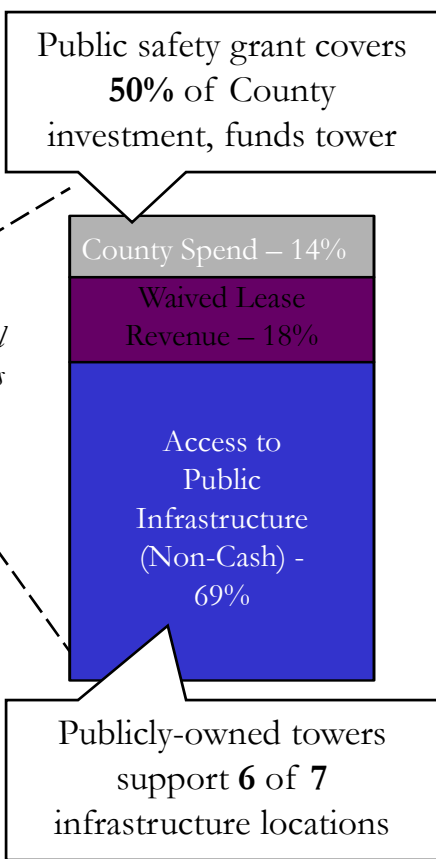
Private Partner, \$000s



Capital spend covers **70%** of geographic region

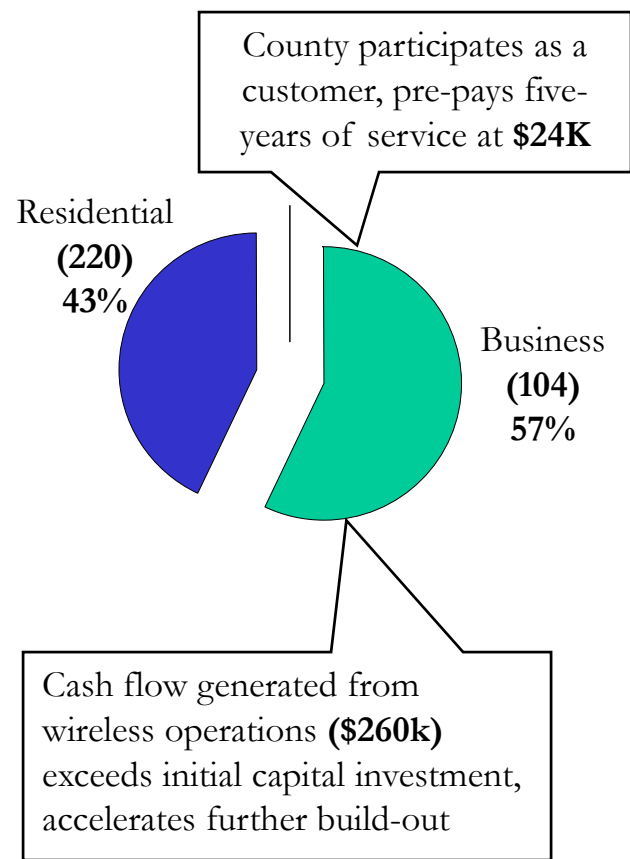
County Economics

By Source



Cash Flow

Customer Distribution





National Initiatives



Commonwealth Broadband Roundtable

National Broadband Plan – Broadband Action Agenda

More than 60 key actions, proceedings, and initiatives the Commission intends to undertake over the next year and beyond to implement the recommendations of the National Broadband Plan.

<http://www.broadband.gov/plan/broadband-action-agenda.html>

A. Promote World-Leading Mobile Broadband Infrastructure and Innovation

- Unleash More Spectrum for Mobile Broadband
- Increase Opportunities for Innovative Spectrum Access Models
- Remove Barriers to Spectrum Utilization
- Improve Data and Transparency Regarding Spectrum Allocation and Utilization

B. Accelerate Universal Broadband Access and Adoption, and Advance National Purposes Such as Education and Health Care

- Connect Rural America (USF High-Cost Fund)
- Intercarrier Compensation (2009 – HB387)
- Connect Low-Income Americans
- Connect Schools and Libraries
- **Connect Hospitals, Clinics, Doctors, and Patients**
- Connect People with Disabilities
- Connect Native American Communities

C. Foster Competition and Maximize Consumer Benefits Across the Broadband Ecosystem

- Remove Barriers to Entry by Streamlining Access to Key Broadband Inputs (rights of way, pole attachments) (2009 – HB474)
- Improve Data Collection, Analysis, and Disclosure to Promote Broadband Competition and Protect and Empower Consumers
- Unleash Innovation and Competition in Video Devices

D. Advance Robust and Secure Public Safety Communications Networks

- Facilitate Creation of a Nationwide Interoperable Public Safety Mobile Broadband Network
- Promote Cybersecurity and Protect Critical Communications Infrastructure
- Promote Development and Implementation of Next-Generation 911 (NG911) and Alerting Systems



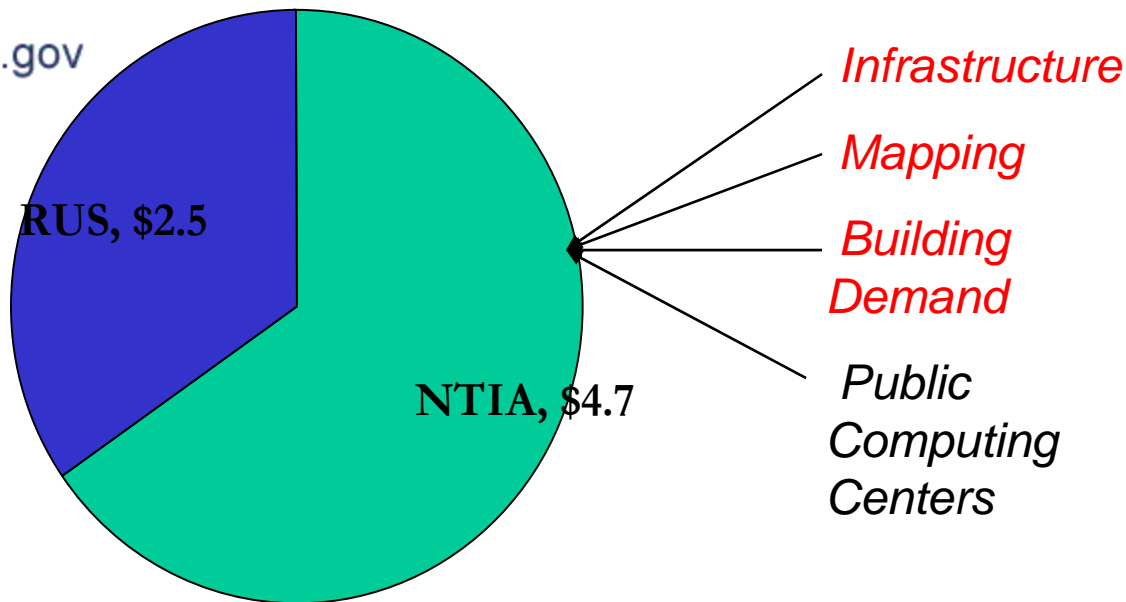
Commonwealth Broadband Roundtable

American Recovery and Reinvestment Act (ARRA) Funding Allocation

Federal Broadband Funding (billions)



Visit
www.broadbandusa.gov



Committed to the future of rural communities.



Commonwealth Broadband Roundtable

Award Recipients – Round One (NTIA and RUS)

- **Allegheny County/nTelos** – \$16 million loan/grant combination from the Rural Utilities Service for middle/last mile in Alleghany County
- **Mid-Atlantic Broadband Cooperative** - \$16 million grant from the National Telecommunication and Information Administration for build out of 465 miles of open access (middle mile) fiber in southside Virginia.
- **Virginia Tech Foundation** - \$5.5 million grant from National Telecommunication and Information Administration to build 110 miles of middle mile fiber between Blacksburg and Bedford City.
- **Nelson County** - \$1.8 million grant from RUS to build middle mile fiber from Afton to Colleen in Nelson County.
- **Page County** - \$1.6 million grant from RUS to build middle mile fiber to a distressed population in the county (< 40% broadband penetration) and to connect town governments, first responders, schools, libraries, and the primary hospital.
- **Buggs Island Telephone Cooperative** - \$19 million from NTIA to bring high-speed affordable (wireless) broadband services to 15 underserved counties and the cities of Emporia and Franklin in south Central Virginia.



Commonwealth Broadband Roundtable

Award Recipients – Round Two (NTIA and RUS)

- **Bristol Virginia Utilities** – (NTIA) \$22.7 million for construction of middle-mile optic network (388 miles) for Bland, Buchanan, Dickenson, Russell, Smyth, Washington, and Wythe Counties covering 120 educational institutions and community organizations and within 2 miles of more than 18,000 homes and 500 businesses.
- **Utopian Wireless Corporation** – (RUS) \$468,133 to bring Wi-Max infrastructure to communities in/around Mineral. Project estimates service approximately 4500 people, 400 businesses, and 50 other community institutions.
- **New Castle Telephone Company** – (RUS) \$1 million to bring DSL to unserved establishments in Craig County. Project stands to benefit approximately 700 people, several businesses and other community institutions.
- **Citizen’s Telephone Cooperative** - (NTIA) \$9,327, 760 for middle mile in the New River Valley. Project will directly benefit more than 50 community institutions, 163,000 people and 1,300 businesses.
- **County of Rockbridge** - (NTIA) \$6,993,399 for middle-mile in west-central Virginia. Project will directly benefit 50 community institutions, 33,000 people, and 1,300 businesses.
- **Mid-Atlantic Broadband Cooperative** - (NTIA) \$10,023,247 for middle-mile in eastern Virginia. Project will directly benefit more than 66 community institutions, 84,000 people and 340 businesses.



Commonwealth Broadband Roundtable

Award Recipients – Round Two (NTIA and RUS)

- **Scott County Telephone Cooperative** - (RUS) received \$7.45m in loans and \$17.4 to provide fiber-to-the-premises (FTTP) broadband services to approx. 12,000 residents, 80 businesses and 16 community centers
- **LENOWISCO Planning District** - (RUS) received \$6.06m in loans and \$14.16m in loans to provide service to an estimated 42,000 residents, 1,550 businesses and 100 community institutions. (Rescinded)



Commonwealth Broadband Roundtable

Award Recipients – Round Two (NTIA and RUS)

- **Bristol Virginia Utilities** – (NTIA) \$22.7 million for construction of middle-mile optic network (388 miles) for Bland, Buchanan, Dickenson, Russell, Smyth, Washington, and Wythe Counties covering 120 educational institutions and community organizations and within 2 miles of more than 18,000 homes and 500 businesses.
- **Utopian Wireless Corporation** – (RUS) \$468,133 to bring Wi-Max infrastructure to communities in/around Mineral. Project estimates service approximately 4500 people, 400 businesses, and 50 other community institutions.
- **New Castle Telephone Company** – (RUS) \$1 million to bring DSL to unserved establishments in Craig County. Project stands to benefit approximately 700 people, several businesses and other community institutions.
- **Citizen's Telephone Cooperative** - (NTIA) \$9,327, 760 for middle mile in the New River Valley. Project will directly benefit more than 50 community institutions, 163,000 people and 1,300 businesses.
- **County of Rockbridge** - (NTIA) \$6,993,399 for middle-mile in west-central Virginia. Project will directly benefit 50 community institutions, 33,000 people, and 1,300 businesses.
- **Mid-Atlantic Broadband Cooperative** - (NTIA) \$10,023,247 for middle-mile in eastern Virginia. Project will directly benefit more than 66 community institutions, 84,000 people and 340 businesses.



Commonwealth Broadband Roundtable

Award Recipients – Round Two (NTIA and RUS)

- **Scott County Telephone Cooperative** - (RUS) received \$7.45m in loans and \$17.4 to provide fiber-to-the-premises (FTTP) broadband services to approx. 12,000 residents, 80 businesses and 16 community centers
- **LENOWISCO Planning District** - (RUS) received \$6.06m in loans and \$14.16m in loans to provide service to an estimated 42,000 residents, 1,550 businesses and 100 community institutions.



Commonwealth Broadband Roundtable

Resources and Opportunities

- Use the **Broadband Toolkit and Resource Materials to Guide the Process**
- **Ask for Assistance (or a Community Presentation)**



Caroline Stolle, Broadband Program Assistant, CIT

Caroline.Stolle@cit.org

Karen Jackson, Deputy Secretary of Technology

Karen.jackson@governor.virginia.gov

Delivering the gift of affordable broadband to every Virginian