

Building Broadband in Maryland: State, local, and private sector partnerships

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The Broadband “Problem”

- Availability
 - Supply side
- Affordability
- Adoption
 - Demand side

Broadband Summary Overview

- Extensive state-wide and local efforts, coordinated through the Governor's Office and DoIT
- Nationally recognized infrastructure program
 - One Maryland Broadband Network (OMBN) grant is among four largest in the US
 - Create a single, statewide broadband network for the public sector and community anchor institutions
- Data collection efforts
 - Broadband mapping
 - Statewide initiative to study broadband status and provide guidance
- “Community Networks” in Maryland

Pioneering Multi-sector Partnerships

- OMBN partners
 - networkMaryland (statewide)
 - Inter-County Broadband Network (central Maryland)
 - Maryland Broadband Cooperative (MdBC) and its members, including most communications carriers in Md
 - Local jurisdictions
- Continued partnership expansion
 - Last mile providers who will use OMBN capacity (cable, phone, and wireless providers)
 - Philanthropists and companies that will support education and adoption programs
- State Resource Sharing

Maryland Broadband Vision: a multi-part focus

- Infrastructure
 - 1,000+ Anchor institutions (OMBN)
 - Public safety (EMMA, 700 Mhz, backhauled over OMBN/SWGI)
 - Enabling opportunities for entrepreneurs and private providers (OMBN + Community Networks)
- Education
 - Support public education with new broadband access
 - Support educational programs to increase broadband adoption statewide
- Data collection
- Support to localities and community groups
- Continued partnerships with the private sector

Significant Achievements of the Past Year

- OMBN award
- Extensive analysis, consultation, and engineering to minimize environmental impact
- Extensive data collection and mapping initiative
- Planning to undertake statewide Capacity Building initiative

Data Collection and Mapping Initiative

- Funded by the US Department of Commerce
- The State selected MdBC as designated agent
- Significant efforts by Salisbury University for creation of comprehensive maps and data
- Data available on the federal government's pioneering National Broadband Map:

www.broadbandmap.gov



National Broadband Map

How connected is my community?

The Broadband Map : First Generation

- The is the first generation of the broadband map, and the process is iterative
- The methodology selected by the federal government, and the data is not granular enough
- Mild concerns emerging regarding potential overstatement of broadband availability
 - Unserved locations may show as “served”
 - Underserved areas may show as well-served
- DoIT is willing to collect and compile clarification letters from individuals who find that the map does not adequately describe the supply at their location

Additional Data Collection

- The broadband map represents the first generation of mapping the supply side of broadband
- DoIT undertaking analysis of the demand side:
 - Where are there needs for broadband that are not being met?
 - Is the existing infrastructure meeting the demand for high bandwidth and mobile services?
 - Does lack of affordability impact demand? Lack of understanding of broadband potential?

Statewide Capacity-building Initiative

- Survey and analyze the gaps in broadband, both in deployment (supply) and adoption (demand)
- Work with local jurisdictions and community groups to determine what supports would assist in filling gaps
 - Identify barriers to adoption
- Work with private sector to determine how to address range of needs
 - New infrastructure
 - Adoption/education programs

Key Goals of the Statewide Capacity-building Plan

- Establish ongoing programs to
 - Support communities in planning
 - Enable broadband adoption programs, including by establishing best Maryland practices and publicizing success stories
 - Leverage the power of the private sector to meet needs in innovative ways
 - New infrastructure
 - Funding for adoption programs (both urban and rural)

Potential New Adoption and Education

- Evaluate best practices from around the country and track emerging adoption programs funded by BTOP
- Work to find private sector, local jurisdiction, and non-profit partners with an interest in adoption
- Establish and publicize programs in Maryland that are new or underused
 - Comcast's \$10 broadband product for families with children who receive subsidized school lunches
 - "Lifeline/Linkup" program that provides federal \$10 subsidy to low income Americans
- Develop and publicize adoption curricula for libraries

Community Networks

- Local governments running a single network to serve
 - Government
 - Public Safety
 - K-12 education
 - Libraries
 - Economic Development
- Examples include
 - Carroll County (CCPN)
 - Washington County (WCPN)
- “Public” broadband network run by government
 - No significant implementation completed today.



Adoption Case Studies: Montgomery & Prince George's County

- DoIT's BTOP application documented that adoption is substantially lower in low income areas
 - Pew data demonstrate that poverty aligns with lower adoption because of lack of home computers, lack of broadband affordability, and lack of digital literacy
- Create partnerships with Counties to provide educational materials for adoption and subsidy programs
- Create partnerships with equipment providers to provide low cost laptops/desktops

Capacity Case Study: Garrett County

- One of the least served counties in the state
- Challenging build-out area
 - Fiber underground requires tunneling through rock
 - Wireless hampered by broad leaf cover and mountains
 - Low population density makes this area less attractive to private sector investors
- Garrett County economic development team is committed to expanding broadband access to 85 percent of the County
- DoIT partnering with the County to bring affordable, high bandwidth fiber to key locations

Capacity Case Study: Rural MD

- Limited “middle mile” and “last mile” fiber available for use by the private sector
- MdBC has built middle mile fiber on the Eastern Shore and brokers it to for-profit and non-profit carriers, ideally so they can build out the last mile
- OMBN will bring extensive additional fiber into every county in the West, South, and on the Eastern Shore
 - Direct service to many key community anchors by networkMaryland (State) and/or County Government
- OMBN will give extensive fiber capacity to the MdBC to be brokered to last mile providers, with extensive interconnection points



Thank You

- Questions?