Accommodating Broadband Infrastructure on Highway Rights-of-Way

Broadband Technology Opportunities Program (BTOP)
Introduction

• Andy Spurgeon
  – Director of Special Projects
  – Denver, CO

  – Key Responsibilities
    • Environmental & Historic Preservation
    • Business Intelligence & Analytics
    • Technical Assistance

  – Contact Information
    • 303-586-1417
    • aspire@ntia.doc.gov
About NTIA

• Part of the U.S. Department of Commerce
  – NTIA is responsible (by law) for advising the President on telecommunications and information policy issues

• Specific NTIA activities:
  – Managing the Federal use of spectrum
  – Administering programs that further the deployment and use of broadband
  – Developing policy on issues related to the Internet economy
  – Performing cutting-edge telecommunications research and engineering with both Federal government and private sector partners
Agenda

- Overview of NTIA Broadband Programs
- BTOP Partnerships with State DOTs (Case Studies)
- Lessons Learned
- Federal Working Group on Accelerating Broadband Deployment
Overview of NTIA Broadband Programs
Established under the Recovery Act, BTOP is a one-time grant program investing $4.3B in three programs to advance broadband:

- Comprehensive Community Infrastructure
- Public Computing Centers
- Sustainable Broadband Adoption

State Broadband Initiative (SBI) and the National Broadband Map

290 Grants in 50 States, DC, and 6 Territories

Source: NTIA Connecting America’s Communities Map  
http://www2.ntia.doc.gov/BTOPmap/
BTOP & SBI Grant Awards Distributed Across US States and Territories

Multi-State and Mapping Awards Only

National Awards
3 $106.0

State Legend
- Single + Multi-State + Mapping Awards
- Multi-State and Mapping Awards Only
- Mapping Grant Only

AS $1.9 1
GU $7.5 2
MP $3.4 2
PR $41.1 3
VI $67.5 4

$ = Amount of awards (in millions)
# = Applications Awarded
BTOP is Outperforming Expectations

Key Project Indicators
As of December 2014

- **New and Upgraded Network Miles**
  - Goal: 112,000
  - Actual: 120,000

- **CAIs Connected**
  - Goal: 21,000
  - Actual: 22,000

- **SBA Subscribers**
  - Goal: 631,000
  - Actual: 630,000
BTOP Partnerships with State DOTs
• BTOP Infrastructure (CCI) recipients partnered extensively with state DOTs during project implementation

• At a minimum, BTOP projects required construction permitting from DOT in nearly every state and territory

• Numerous projects had more creative or extensive partnerships:
  – DOT Contributions of ROW as In-Kind Match
  – Joint Builds
  – DOT Direct Benefits
  – DOT Fiber Acquisition and Fiber Swaps
BTOP grants required a significant non-Federal matching share (minimum 20%) from recipients. Match could be in the form of cash or in-kind assets.

In several cases, State DOTs partnered with BTOP recipients to contribute valuable ROW to the projects to meet this requirement.

Considerations

- DOT typically received fiber IRUs or services in exchange for participation
- ROW valuations varied widely and NTIA requested third-party appraisals to document the value
Joint Builds

Considerations

- Proportional cost sharing
- Ownership of Federally-funded assets
- Strict ARRA schedules vs. seasonal construction

BTOP recipients actively worked with State DOTs during before and during construction. In several cases they engaged in joint construction efforts, based upon:

- Other telecom or utility construction
- Scheduled DOT projects
- Environmental and cultural resource requirements
DOT Direct Benefits

State DOTs were major beneficiaries of BTOP networks:

- Direct connections of DOT facilities to fiber and microwave connections
- Traffic camera deployment, and backhaul for traffic cameras
- Signal controls and other traffic monitoring applications

Considerations

- Eligibility to connect DOT facilities
- DOT objectives
- Schedule and DOT funding
BTOP recipients have connected **490** DOT facilities in **32** states to BTOP networks.
Several BTOP recipients worked with State DOTs to support DOT fiber networks:

- Leverage existing DOT fiber assets
- Expand DOT fiber networks

**Considerations**

- Location and availability of network assets
- Future DOT network needs
- DOT willingness to share its resources
Lessons Learned
Positive Lessons

• Broadband projects and State DOT requirements are frequently in alignment in ways that may not be obvious initially

• Broadband projects should view State DOTs as more than a “permitting requirement” – they represent an opportunity

• Creative partnerships can create win-wins for both parties

• State DOTs should participate in other state-level broadband planning and implementation initiatives; they have unique knowledge and a valuable perspective
Areas For Growth

- Broadband projects and DOTs need to take a long-view to these partnerships
- Once established, partnerships require follow-through – paper and good ideas without action don’t mean much!
- Coordination and notice to industry for “Dig Once” policies
Accelerating Broadband Deployment
“Broadband access is essential to the Nation's global competitiveness in the 21st century, driving job creation, promoting innovation, and expanding markets for American businesses”

- President Barack Obama

- Established a Broadband Working Group
- Develop and implement a strategy to facilitate timely and efficient broadband deployment
- Ensure consistent approach among Federal agencies
- Coordinate with appropriate external stakeholders
- Include procedures for coordination with State, local and tribal governments
Accomplishments To-Date

- Aggregating Data Sets on Federal Asset Locations *
- Developing Common Forms and Templates with an Online Platform
- Increase Accessibility and Usability of Federal Broadband Documentation
- Establishing *Dig Once* Best Practices
- Improving Section 106 (Cultural Resources) and National Environmental Policy Act Efficiency
- Increasing Coordination with Tribal Nations for Permitting and Environmental Reviews

* For detailed maps, see:

http://www.permits.performance.gov/broadband_map/
and
http://bit.ly/1dq8tjX

Source: Implementing Executive Order 13616: Progress on Accelerating Broadband Infrastructure Deployment

http://www.whitehouse.gov/sites/default/files/microsites/ostp/broadband_eo_implementation.pdf