Infrastructure Week: Leveraging Public Assets to Accelerate Broadband Deployment

NTIA Webinar Series

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May 15, 2019
Participants

Presenters

- Antonia Graham, Assistant City Manager and Energy and Sustainability Manager, City of Huntington Beach, California
- Lynne Yocom, Fiber Optics Manager, Utah Department of Transportation
- Jennifer Duane, Broadband Program Specialist, NTIA, BroadbandUSA

Moderator

- Katherine Bates, Manager of State and Local Partnerships, NTIA, BroadbandUSA
Helpful Information

Questions
• Please type questions and comments in the question box on the right hand side of the screen. Questions will be taken after the final presenter.

Presentation
• The presentation along with a transcript and an audio recording will be available on the BroadbandUSA website within 7 days of this webinar under Events/Past Events.
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Technical Assistance
• Guides, products, publications, and other tools are available to assist you with the planning, funding and implementation of your broadband project.
• [https://broadbandusa.ntia.doc.gov](https://broadbandusa.ntia.doc.gov)

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MASTER PLANNING EFFORTS

- Broadband Strategic Plan - The new utility and economic development + more
- Opportunities for public / private partnership
- Action Plan for implementing broadband and innovation
- Policy/best practice - dig once/joint trench, design standards, lease prices, and code revisions
WIRELESS MASTER PLAN - GIS MAPPING TOOL
DELIVERABLES FOR MANAGING SMALL CELL SITES

WHAT WE DO NOT WANT IN OUR CITY
COMMITTEE FOCUSED ON THREE KEY ISSUES

- Zoning Code Amendment – Chapter 230.96
- Dig Once Policy
- Master License Agreement
DESIGN GUIDELINES - DONT’S
DESIGN GUIDELINES - DO’S
ZONING CODE CHANGES

- Zoning Text Amendment
- Definition of small cell sites located in the public right-of-way
- Definition of Routine Maintenance and Power Supplies
- Creation of Public Works Design Standards for attachments and poles
PROPOSED JOINT TRENCH: MINIMIZING EXCAVATION THROUGH COORDINATION

Joint Trench Defined:
Policies and/or practices that minimize the number and scale of excavations when installing tele-communications infrastructure in rights-of-way.
SITE LICENSING & REVENUE OPPORTUNITIES

- Current license agreements vary from City to City as do lease rates
- The City is currently receiving $2,000 per pole per year with an escalator
OUTREACH

- Telecommunications Carrier Information Meetings (held 2)- 11 carriers present
  - Reviewed Zoning Code Amendment, Dig Once, Design Guidelines, leasing structure discussion.
  - Received feedback on proposed changes.
- Ongoing dialogue with telecommunication providers and utilities in regards to Joint Trench
MASTER LICENSE AGREEMENT

- Hired appraisal firm and fee consultant
- Entered into agreements with AT&T, Philips, and Mobilitie
QUESTIONS & RESOURCES

• Wireless Communications Facilities Information: huntingtonbeachca.gov/government/departments/public_works/wireless-communications/

• Antonia Graham: Antonia.Graham@surfcity-hb.org
Leverage Urban
To Build Rural
2002 Winter Olympics

- First Fiber Optics
  • Connecting Cameras
  • Connecting Traffic Lights
  • Connecting VMS

- First Trade
  • $800,000 for 5 blocks of a single 2 inch conduit.
CentraCom

- Lt. Governor Spencer Cox
- Breaking the Monopoly
University of Utah Dark Fiber Research Ring and Data Center
Federal Laws

- United States Code – USC - TITLE 23—HIGHWAYS - CHAPTER 5- RESEARCH, TECHNOLOGY, AND EDUCATION - §514. Goals and purposes - (b) Purposes 4) to promote the innovative use of private resources in support of intelligent transportation system development;

- The 1998 FHWA policy change allowing states to accommodate longitudinal access of utilities within interstate rights-of-way;
- The 1996 Telecommunications Act authorizing states to enter into agreements with telecom companies;
- Federal Webinar Ken Leuderalbert PE
- BLM Issues
- Rural Interstate Corridor Communications Study Report to States 2009
Dig Once

- Broadband Opportunity Council Agencies’ Progress Report  January 2017
- UDOT – No Policy
- Dig Once Policy Considerations Implementing Dig Once policies at the local, rather than at the statewide or national level, would be more effective given the complexities of implementing a policy that spans jurisdictions. Federal, state and local infrastructures, for instance, are subject to different laws regulating build-out plans for deploying broadband. In addition, most work for managing and maintaining utility facilities on roadways are the responsibility of counties and cities, including requests for utility permits to install and conduct work on existing facilities. An approach that encourages cooperation, but does not prevent excavation when needed is most supported by federal, state and local agencies when implemented as part of the cooperative planning process.
Extent of the UDOT Network

- UDOT has about 2,517 miles of fiber optics. This total includes UDOT fiber 960 miles with PPP (Public, Private, Partnership) fiber 1,558 miles. The St. George connection is with a pipeline for 300 miles not a road. South Central Fiber Circuits 312 miles connect Cedar City, Bryce Canyon, Kanab, Parowan and Beaver. The percentages I calculated are for road miles and do not include the rural fiber circuit trades of 612 miles.

- Utah Interstate Miles  978
- Interstate Fiber Miles  443 fiber miles 45%
  - I-15 400 miles with 281 fiber miles 70%
  - I-215 29 miles with 29 fiber miles 100%
  - I-80 197 miles with 87 fiber miles 44%
  - I-84 120 miles with 23 fiber miles 19%
  - I-70 232 miles with 23 fiber miles 10%
- Level 1 Road Miles  2,980
- Level 1 Fiber Miles  1,442 49%
- Level 2 Road Miles  1,960
- Level 2 Fiber Miles  20 1%
- Total Interstate, Level 1 and Level 2 Road Miles  5,875
- Total Interstate, Level 1 and Level 2 Fiber Miles  1,905 32%
State 2006

UDOT Fiber/Conduit 631 Miles Aprox.

Traded Fiber/Conduit Circuits 100 Miles Aprox.
State 2019

UDOT
Fiber/Conduit 960 Miles Aprox.

Traded Fiber/Conduit Circuits
1000 Miles Aprox.
UDOT Trade Partners
Telecoms

CentraCom
InterLinx
Syringa Networks
BEEHIVE
CROWN CASTLE
frontier Communications
All West Communications
South Central Communications
Emery Telcom
STRATA Networks
CONNEXT
xo communications
integra TELECOM
zayo GROUP
MCI
CenturyLink
Trade Agreements Public vs Private

- Difference between Public Partner and Private Partner
  - Interlocal Cooperative Vs Lease Agreement
    - City, County, State, Public Safety,
    - Who is UDOT allowed to serve?
      - UT code 72-7-108 language on state buildings.
      - Crown Castle Library at Alta
      - Trade Agreements 30 years
      - Telecom Restrictions
Big & Little Cottonwood Canyons
Peak Traffic Days Are Powder Days
Avalanches
Why Build the Cottonwoods?

- No monitoring road Conditions
- Poor communications
  - Operations groups
  - Emergency response - Avalanche
  - Ski resorts and lodges
  - Everyday users
Crown Castle International

- Wireless infrastructure company
- Supports all carriers
- Proposed DAS in each canyon
Crown Castle Received

- Build Fiber-Optic Backbone in ROW
- Wireless Towers in ROW
- Use of UDOT fiber conduit
- Hub building on UDOT ROW
UDOT Received

- 24 strands on fiber cable
- Spare conduit
- Access to all poles for equipment
- RWIS Installation
- Power for devices
- Hub space for equipment
Project Summary

- Projects Estimate: $5 Million
- 35 poles
- 24.5 Miles fiber optics
- 7200 Volt Electrical Systems
- 12 new cameras - 8 RWIS - 15 chain-up signs
- Improved communications for All Users
- Avalanche Operations Center
- Future ITS expansion (dms, etc.)
Rural Build Challenges

• BLM
  • Permit Process - Lessons Learned
• Forest Service - Parks Service
• School Lands - State Parks
• Indian Nations
• Environmental
  • Hogs Back example
Links

- Utah Code 72-7-108 - https://le.utah.gov/xcode/Title72/Chapter7/72-7-S108.html
Fiber Highway

Lynne Yocom
Utah Department of Transportation Fiber Optics
lyocom@Utah.gov
801 514 4565

LTDOT
Keeping Utah Moving
American Broadband Initiative Launched Feb 2019

“The American Broadband Initiative is the Administration’s signature strategy to stimulate increased private investment in broadband infrastructure and services to fill broadband connectivity gaps in America.”

Structure

Executive Leadership Team:

- OAI
- OSTP
- NEC
- OMB

Workstreams:

- Federal Funding of Broadband
- Streamline Federal Permitting
- Leverage Federal Assets

EOP:
- OAI
- OSTP
- NEC
- OMB
Streamline Federal Permitting Workstream

Objective: A streamlined Federal permitting process will make it easier for network builders and service providers to access Federal assets and rights-of-way, reducing the regulatory burden and simplifying the deployment of broadband networks.

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<tr>
<th>CHAIRS: Department of Homeland Security</th>
<th>Department of Agriculture</th>
<th>General Services Administration</th>
<th>Office of Management and Budget</th>
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<td>Council on Environmental Quality</td>
<td>Department of Veterans Affairs</td>
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<td>Department of Defense</td>
<td>Advisory Council on Historic Preservation</td>
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<td>Department of Transportation</td>
<td>Federal Communications Commission</td>
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Streamline Federal Permitting – Key Actions

• Develop a Common Application Form
  • GSA worked with USDA, DOI, DOT, DHS and NTIA to revise SF299, currently used to apply for authorizations to access federal lands, to include both wired and wireless uses and make it more responsive to stakeholder needs
  • In April 2019, Forest Service published a Federal Register Notice seeking comments by June 24, 2019 on the SF299 to comply with Paperwork Reduction Act

• Create One-Stop for Broadband Permitting Information
  • NTIA created a resource on its BroadbandUSA website for information about federal permitting of broadband infrastructure, updating it as the federal property managing agencies make process improvements
  • NTIA published on the BroadbandUSA website flow charts reflecting current permitting workflows for the most common asset types, providing a single location for information on federal permitting of broadband infrastructure (e.g., BLM land; DOI towers; GSA buildings)

• Harmonize and Streamline Regulations and Policies
• Implement Provisions in MOBILE NOW Act
BroadbandUSA – One-Stop for Federal Broadband Permitting Information

- NTIA consolidated permitting information and created a one-stop location for information about Federal permitting of broadband infrastructure on NTIA’s BroadbandUSA website. It will update that site as process improvements are made by the land and property managing federal agencies.

- [https://broadbandusa.ntia.doc.gov/ntia-resources/federal-permitting-overview](https://broadbandusa.ntia.doc.gov/ntia-resources/federal-permitting-overview)
Federal Permitting: Overview

Mon, April 01, 2019

The federal government owns or controls about 640 million acres of land in the United States, about 28 percent of the total land area of 2.27 billion acres. The Department of the Interior (DOI) is responsible for managing nearly 500 million acres of land, or one in every five acres of land in the United States. The U.S. Forest Service, part of the Department of Agriculture (USDA), manages about 192.9 million acres of national forests. Most of the public lands that DOI manages are located west of the Mississippi River in 11 western states and Alaska. Although Forest Service holdings are mostly in the Western United States, it also manages about 60 percent of all federal lands in the Eastern United States. Of the nearly 27 million acres of land that the Department of Defense (DOD) manages, it owns 11.4 million acres, about two percent of all federal land. Together, DOI, USDA,
Leverage Federal Assets Workstream

- **Objective:** Federal assets such as tower facilities, buildings, and land should be made available for use in deploying broadband infrastructure as much as possible to lower the cost of broadband buildouts and encourage private-sector companies to expand telecommunications infrastructure, especially in rural America.

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Leverage Federal Assets – Key Actions

• Completed an Agency survey of assets managed by DOI, DoD, GSA, USDA, NASA, VA, and DOE and identified additional asset classes that could be leveraged to further support broadband networks.
  • DOI published a new mapping tool (Joint Overview-Established Locations (JOEL) Map) depicting the location of towers sites and managing agency information
  • By May 2019, GSA will publish an updated Federal Real Property Profile (FRPP) that includes new data elements enabling the private sector to identify more readily the suitability of federal assets for broadband infrastructure deployment
  • Develop recommendations for creating a standardized process to make information about Federal assets accessible for public and/or commercial use; and publish final recommendations.
    • By December 2019, DOE will complete a feasibility assessment to determine whether the Western Area Power Administration and Southwestern Area Power Administration can lease excess fiber to their customers and broadband service providers.
Thank You!

Jennifer Duane
Broadband Program Specialist
NTIA, BroadbandUSA

https://broadbandusa.ntia.doc.gov
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Questions and Answers

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Building Smart Cities and Communities at the Regional Level

June 19, 2019
2:00 pm EST

Registration is required for each webinar:
https://broadbandusa.ntia.doc.gov/event
BroadbandUSA is available to help communities with their broadband access and digital inclusion efforts

For General Information:
- 202-482-2048
- broadbandusa@ntia.gov
- https://broadbandusa.ntia.doc.gov/resources

To Request Technical Assistance (TA):
- Broadband TA Request Form - https://broadbandusa.ntia.doc.gov/ntia-common-content/how-we-can-help

BBUSA Resources
- Implementing a Broadband Network Vision: A Toolkit for Local and Tribal Governments
- Community Broadband Roadmap Toolkit
- Guide to Federal Funding of Broadband Projects
- Using Partnerships to Power Smart Cities