



Broadband Data Collection Technical Assistance Workshop for Tribal Governments

FEDERAL COMMUNICATIONS COMMISSION

Broadband Data Task Force
Office of Native Affairs and Policy

December 8, 2021

Agenda

- ▶ **Welcome**
- ▶ **Background on the Broadband DATA Act and Broadband Data Collection**
 - ▶ Questions (Background)
- ▶ **Technical Assistance**
 - ▶ Authenticating Tribal Government Filers in the BDC System
 - ▶ Break
 - ▶ Requirements & Specifications for Broadband Availability Data
 - ▶ Questions (Technical Assistance)
- ▶ **Additional Workshop(s)**
- ▶ **Concluding Remarks**

Broadband Data Collection: Introduction

- ▶ Even before the global spread of COVID-19, access to broadband service had become vital for school, work, healthcare, and more.
- ▶ The first step toward connecting all Americans is ensuring that we have accurate information about where broadband service is and is not available across the country.
- ▶ The FCC, as the independent federal agency responsible for implementing and enforcing America's communications law and regulations, has been tasked with collecting, mapping, and making available more precise nationwide broadband availability data.

Broadband Data Collection: FCC's Historical Approach

- ▶ **The FCC today collects broadband deployment data using FCC Form 477**
 - ▶ Fixed broadband service providers report broadband deployment based on U.S. Census Block geographic areas
 - ▶ The U.S. is divided into +11,000,000 census blocks varying in size between urban and rural areas.
 - ▶ If a fixed provider makes service available to at least one location within a census block, then the entire census block is shown as "served" by the provider.
 - ▶ Mobile broadband service providers report broadband deployment by technology and based on minimum advertised speed or, if a particular speed is not advertised, then speeds consumers should reasonably expect to receive at a given location.
 - ▶ A lack of standardized reporting parameters prevents apples-to-apples comparisons of data among mobile service providers.

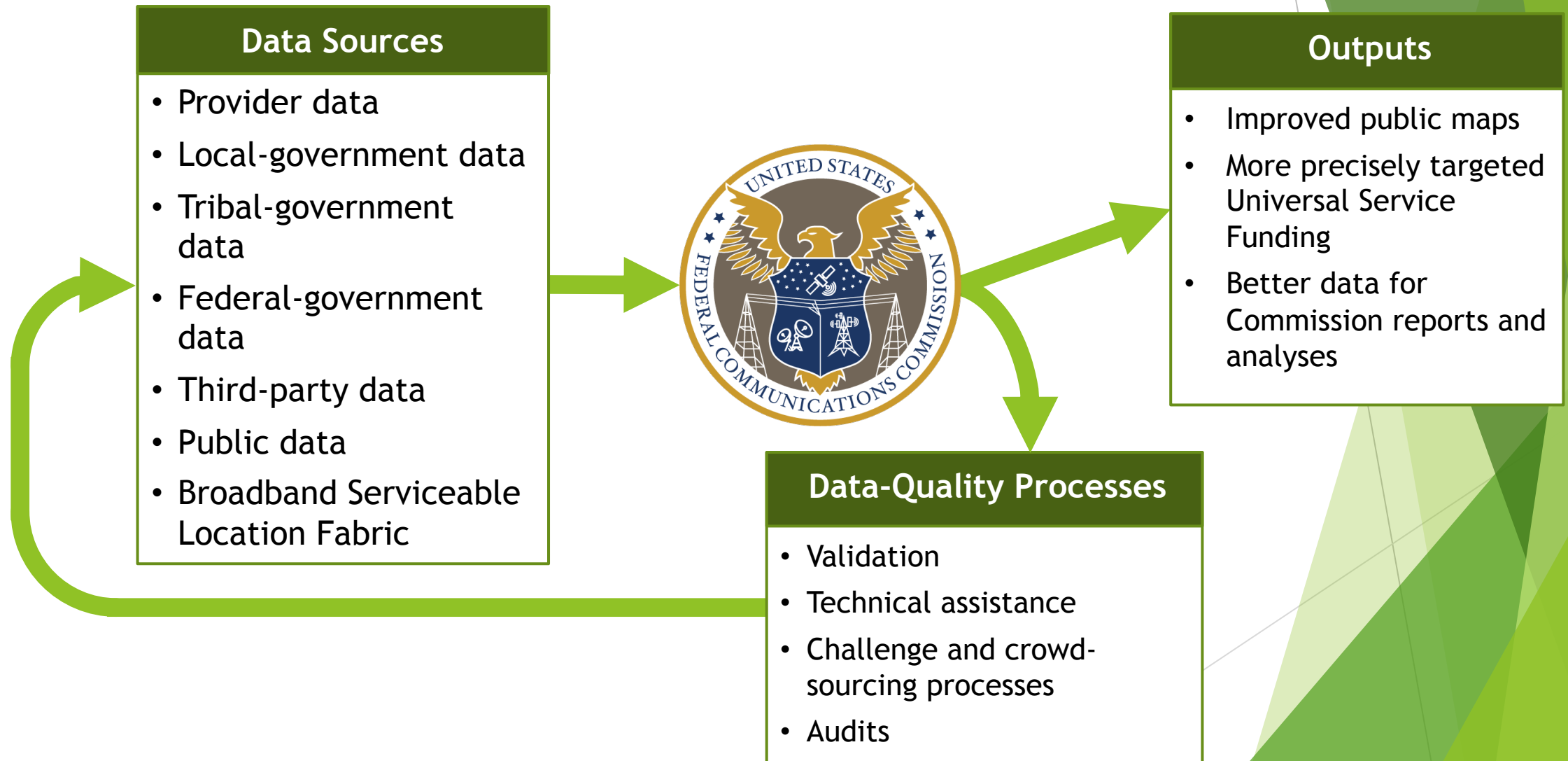
Broadband Data Collection: Goal

- ▶ **More precise and consistent broadband availability data is critical to efforts to target public funds to connect unserved and underserved communities, including those on Tribal lands.**
- ▶ **Congress directed the FCC to develop processes and procedures to collect, verify and publish more precise data in the Broadband Deployment Accuracy and Technological Availability Act (Broadband DATA Act).**

Broadband Data Collection: Key Dates

- ▶ **March 2020: Broadband DATA Act**
 - ▶ Specified collection of broadband data and challenge/verification processes
- ▶ **July 2020: Second Report and Order/FNPRM**
 - ▶ Reporting
 - ▶ Broadband Serviceable Location Fabric
 - ▶ Processes for verifying data
- ▶ **December 2020: Consolidated Appropriations Act**
 - ▶ Funding for implementation and administration of data collection
- ▶ **January 2021: Third Report and Order**
 - ▶ Further refinements and challenge processes
 - ▶ Delegated additional technical challenge/verification methodologies to Bureaus/Offices
 - ▶ Established the requirements for the collection and submission of verified coverage data from governmental entities, including Tribes
 - ▶ Directed OEA and CGB/ONAP to provide technical assistance to Tribes, among others
- ▶ **February 2021: Broadband Data Task Force Established**
 - ▶ Expedite and coordinate implementation effort spanning multiple FCC Bureaus and Offices

Broadband Data Collection: What We Need to Accomplish



Broadband Data Collection: What We Will Achieve

- ▶ Fixed broadband availability data down to the individual location
- ▶ Mobile broadband availability data standardized across providers
- ▶ Challenge process to identify and dispute data collected from providers
- ▶ Incorporation of data from state, local, and Tribal governments
- ▶ Crowdsourcing information to support verification efforts
- ▶ Audits and enforcement

Broadband Data Collection: Implementation Milestones

▶ Spring 2021

- ▶ Data Architect & Design Services Contract
- ▶ RFI for Fabric
- ▶ Consumer Experience Portal

▶ Summer 2021

- ▶ RFP for Fabric Development
- ▶ Contract for IT System Development
- ▶ Public Notice on Mobile Challenge, Verification, and Crowdsourcing Methodology
- ▶ 4G LTE Mobile Map of Four Largest Providers' Coverage Based on BDC Parameters to Preview BDC Maps

Broadband Data Collection: Implementation Milestones

▶ Fall/Winter 2021

- ▶ FCC Speed Test App Contract Modifications for Mobile Challenge, Crowdsource Updates
- ▶ Fabric Contract (subject to GAO review)
- ▶ Contracts for Expanded Technical Assistance Resources
- ▶ Initial Tribal Government Technical Assistance Workshop

Broadband Data Collection: Next Steps

- ▶ **Additional outreach to Tribes and other filers**
- ▶ **Other contracts (*e.g.*, user acceptance and IV&V testing)**
- ▶ **Public Notice to announce start of data collection, followed by initial data collection and map publication**
- ▶ **Open Submission Window**
- ▶ **Publish Maps/Data**
- ▶ **Challenge and Verification Process**

Questions?

Technical Assistance: Filer Authentication

Technical Assistance: Identity Authentication for Tribal Entities

- ▶ BDA Sec. 802(a)(2): “[T]he Commission shall develop a process through which the Commission can collect verified data for use in the coverage maps from—
 - (A) State, local, and Tribal governmental entities that are primarily responsible for mapping or tracking broadband internet access service coverage for a State, unit of local government, or Indian Tribe, as applicable”

Technical Assistance: Identity Authentication for Tribal Entities

- ▶ The Commission has directed the Bureaus and Offices to implement the details of this process. *Second Report and Order* at 7494, para. 82.
- ▶ The Commission has advised that the source of the data will be a component of its evaluation of the credibility of the data. *Third Report and Order* at 1151, para. 62.

Technical Assistance: Identity Authentication for Tribal Entities

- ▶ Authenticating Tribal Governmental Entity Filers
 - ▶ Commission Registration System (CORES)

Each individual or organization doing business with the FCC is required to provide and maintain a current official contact address. The contact address you provide will be used to mail important FCC related information to you.

FRN Registration

Register a Domestic Entity

Entity Type: Federal Agency Subtype: Commission

Entity Name: *

If your organization has an [Employer Identification Number](#) or [Taxpayer Identification Number](#) enter and confirm it here.

EIN: Confirm EIN:

If your organization does not have an [Employer Identification Number](#), select a reason: [?]

Contact Information

Organization: Position: *

Salutation: First Name:

Middle Initial: Last Name:

Suffix:

Address Line 1: * Address Line 2:

City: * State: * ALABAMA

Zip Code: * Phone: * ext. []

Fax: Email: *

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- ▶ For additional information, visit here: <https://www.fcc.gov/licensing-databases/commission-registration-system-fcc>

Technical Assistance: Identity Authentication for Tribal Entities

- ▶ Coordination Among Intra- and Inter-Governmental Organizations
 - ▶ We encourage Tribes to identify one entity that will have primary responsibility for mapping or tracking broadband coverage on behalf of the Tribal government.
 - ▶ If an inter-governmental organization also has verified broadband coverage data, then we would look to the Tribal government(s) and the inter-governmental entity to coordinate their submissions.

Break



Technical Assistance: Requirements / Specifications for Submitting Primary Availability Data

Technical Assistance: Broadband Availability Data Specifications

- ▶ Governmental entities seeking to file verified data “must file their broadband availability data in the same portal and under the same parameters as providers (e.g., formatting requirements, required information, certifications).” *Third Report and Order* at 1152, para. 63.
- ▶ Submitters must also disclose the methodologies used to produce their data. *Id.*

Technical Assistance: Broadband Availability Data Specifications

- ▶ Today's presentation is a high-level overview of the process the FCC will establish for submitting verified data.
- ▶ In the future, we will release detailed documentation setting forth the specific data elements, fields, and formatting requirements and other specifications for these data.

Technical Assistance: Broadband Availability Data Requirements

- ▶ Fixed Service - Two Options:
 - ▶ List of Locations Served
 - ▶ Includes locations (homes, small businesses) that have a connection or could be connected within 10 business days
 - ▶ Tabular data file
 - ▶ Locations linked to Broadband Serviceable Location Fabric location ID associated with coordinates and, where available, addresses
 - ▶ Coverage Area / Service Area Polygon
 - ▶ GIS data file (shapefile, geodatabase, other)

Technical Assistance: Broadband Availability Data Requirements

- ▶ Terrestrial Fixed Wireless Service
 - ▶ Lists of locations, or
 - ▶ Coverage Area Polygon based on Propagation Map and Model Details
 - ▶ Same requirements as those for terrestrial fixed and satellite providers submitting polygon coverage data
 - ▶ Must use standardized propagation model parameters
 - ▶ 50% cell loading, 75% cell-edge probability, and receiver height limits
 - ▶ Must also include information on base stations, antennas, link-budget parameters, and clutter categories

Technical Assistance: Broadband Availability Data Requirements

- ▶ Fixed Service - For each location or area served, data must include:
 - ▶ Provider Name
 - ▶ Is the service offered Residential, Business, or Both?
 - ▶ Technology used to offer service
 - ▶ Maximum Advertised Download and Upload Speeds
 - ▶ If speeds below 25/3 Mbps, report in one of two buckets (below or above 10/1 Mbps)
 - ▶ Latency Information
 - ▶ Flag whether above or below 100 milliseconds

Technical Assistance: Broadband Availability Data Requirements

- ▶ Fixed Service - Additional Requirements
 - ▶ Methodology
 - ▶ General and Engineering Certifications
 - ▶ Wired fixed coverage area must conform to maximum buffer sizes

Technical Assistance: Broadband Availability Data Specifications

▶ Mobile Service

- ▶ Report service based upon propagation modeling by technology and minimum speeds
 - ▶ 3G = 200/50 kbps
 - ▶ 4G = 5/1 Mbps
 - ▶ 5G = 7/1 Mbps and 35/3 Mbps
- ▶ Must submit maps indicating where model predicts:
 - ▶ In-vehicle mobile coverage, and/or
 - ▶ Outdoor stationary coverage

Technical Assistance: Broadband Availability Data Specifications

- ▶ Reporting Mobile Services (Coverage Maps):
 - ▶ GIS Data File containing polygons
 - ▶ Data Attributes Include:
 - ▶ (1) Provider Name;
 - ▶ (2) Technology Used to Deploy the Service;
 - ▶ (3) Minimum Download and Upload Speeds; and
 - ▶ (4) Minimum Signal Strength
 - ▶ Must use standardized propagation model parameters
 - ▶ 50% cell loading, 90% cell-edge probability, maximum resolution bin size, terrain/clutter
 - ▶ Information on propagation model, link-budget parameters, and clutter categories

Questions?

Broadband Data Collection: Next Steps for Tribes

- ▶ Consider best way[s] to participate in BDC and what is required
 - ▶ Challenges
 - ▶ Provider data: direct challenges and/or through assistance to Tribal members
 - ▶ Fabric: geolocate Tribal locations
 - ▶ Submit Primary Data
 - ▶ Note technical requirements
 - ▶ Submit Crowdsourced data
- ▶ Additional Workshop(s)

Other Questions?

Email the Office of Native Affairs and Policy at:

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or the Broadband Data Task Force at:

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