



Technical Services for Broadband Providers

Optimizing broadband opportunities and overcoming technical hurdles in a rapidly-evolving regulatory and market environment is challenging. Connected Nation's mission is to promote broadband adoption and expansion across the nation. CN has been working with broadband providers as well as federal, state, and local stakeholders in data collection and analysis to **advance broadband access, adoption, and use** across the board. In addition to preparing FCC Form 477 filings, there are other analyses and products CN can develop to aid broadband providers in **improved operations** of their current network and **better understand** the community and potential marketplace around them.

Contact Connected Nation for assistance with data processing, filings, and analyses:

- *Census Block Identification:* Help providers identify the census blocks that should be reported for Form 477 broadband deployment.
- *Form 477 Data Preparation:* Process the broadband deployment coverage into census block data including the necessary speeds; process broadband and voice subscription information at the census tract level.
- *Detailed Service Area Mapping:* Develop detailed maps and files of broadband service offerings to isolate served and unserved areas and assist with expansion planning.
- *Propagation Model Development (Wireless):* Create propagation models of wireless service areas based on equipment specs and local topography to visualize service availability.
- *Conversion from CAD or Paper Records:* Develop Geographic Information System (GIS) files that can be used to enhance operations, analyze services/demographics, and create maps.
- *Service Area Analysis:* Analyze the current service area to help a provider understand more completely the environment for which they are offering services.

- **Target Market Analysis:** Analyze target areas for cost estimations of new infrastructure lines to be constructed, demographics of potential customers, and a review of local vertical assets.
- **Federal/State Policy Services:** Connected Nation works on the ground every day with local communities in an effort to expand broadband access and adoption. In its broadband advocacy work, Connected Nation develops recommendations for public policy to represent the grassroots interests of these local communities.
- **Grant/Loan Application Assistance:** Support the grant and loan application process through analysis of current and/or potential service areas at census block/census tract level per application requirements.
- **Community Collaboration:** Match community broadband challenges with measurable, implementable solutions.
- **Premium Data Analysis:** Comprehensive analyses of the overall broadband landscape to determine the density of households unserved by broadband, the maximum advertised download speed available from all providers in an area, the density of providers (competition), and many more customizable criteria.
- **Engineering/Validation Services:** Third-party validation and reporting of broadband services in targeted geographic areas.
- **Mobile Drive Testing:** Conduct testing and analysis of mobile networks by collecting data on download speed, upload speed, latency, and/or other metrics in the field.
- **Interactive Map Development/Hosting:** Development and hosting of custom interactive maps to advance or enhance day-to-day operations and decision making.
- **Other GIS Services:** The possibilities are nearly endless when using GIS to better understand a market area, current services, or possible expansion opportunities. CN can even assist with the development and implementation of a GIS as well as training staff on using GIS in-house.

For more information about how CN can help navigate data needs for operations, planning/expansion, and filings/applications, contact Connected Nation at technicalservices@connectednation.org.