

Office of Broadband Access and Expansion

Connect New Mexico Fund

Webinar Series

Topic: New Mexico Broadband Maps Overview

January 11, 2024

1

Data Concepts

- Serviceable vs Eligible Locations
- Service Claims vs Status
- Community Institutions
- NM Best may show your FCC challenges

2

The Web Maps

- Summary Numbers by Scenario
- General Reference
- Grant Application Planning
- Grant Area Challenges

3

Data Formats

- file geodatabase or shapefile or KMZ/KML
- CSV or XLSX

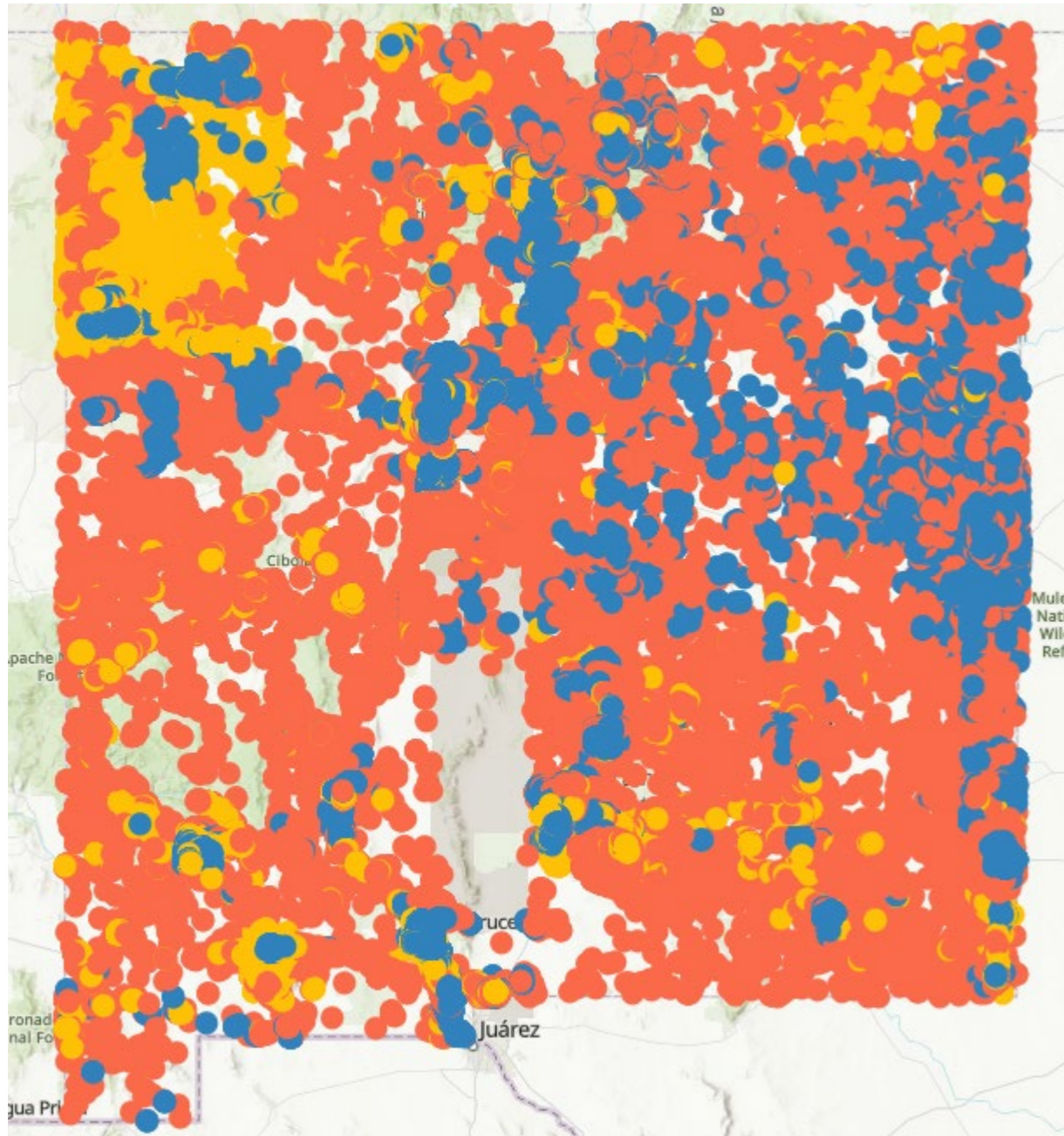
4

Locations in Your PPA

- CostQuest License
- Access NM911 address list for your PPA

Serviceable vs Eligible Locations

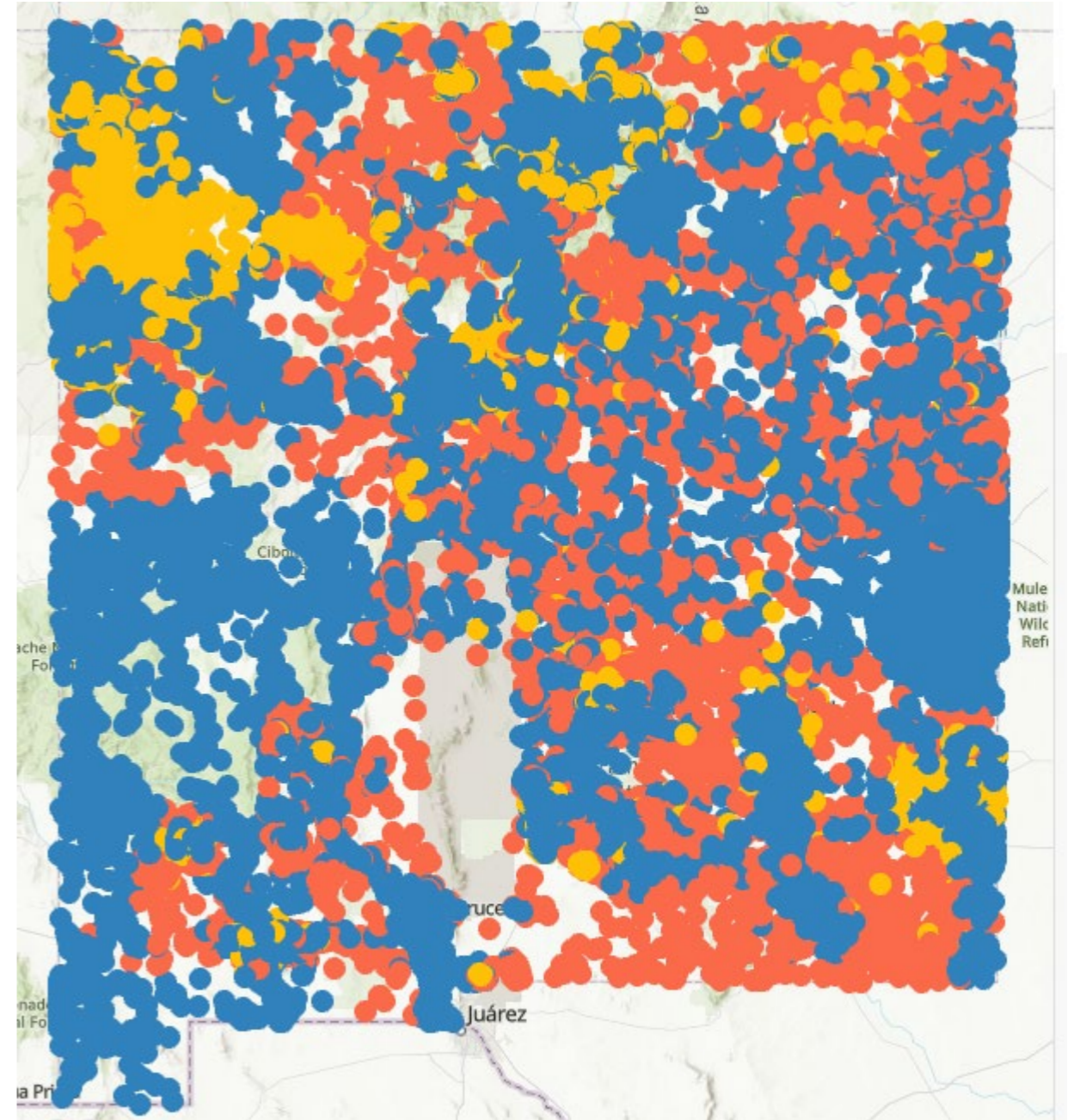
FCC Official: Serviceable Locations



FCC Official BSL BDC Service Status

- Underserved 59995
- Unserved 101048

BEAD Eligible: per Grant Funding "deduplicated"

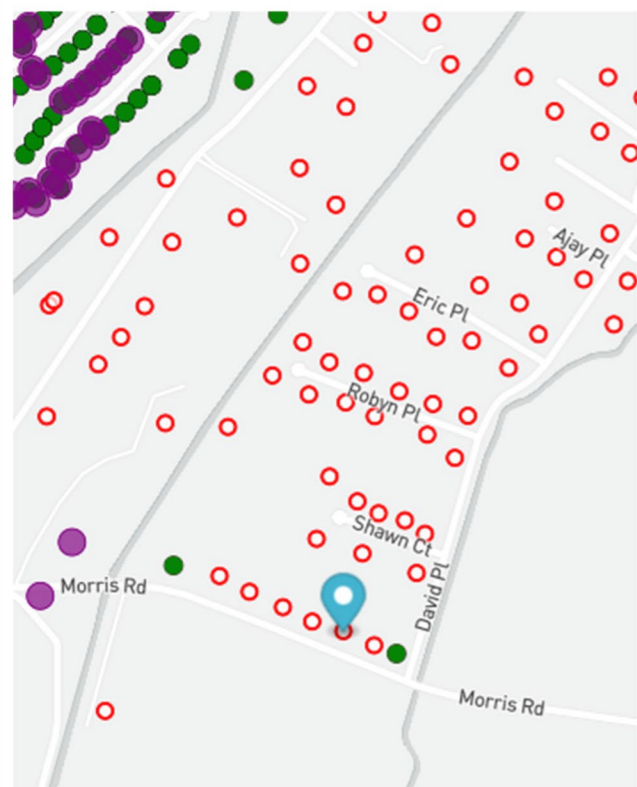


FCC Official V32 BSL BDC Service Status Deduplicated

- Underserved 34883
- Unserved 27424

Service Claims vs Status

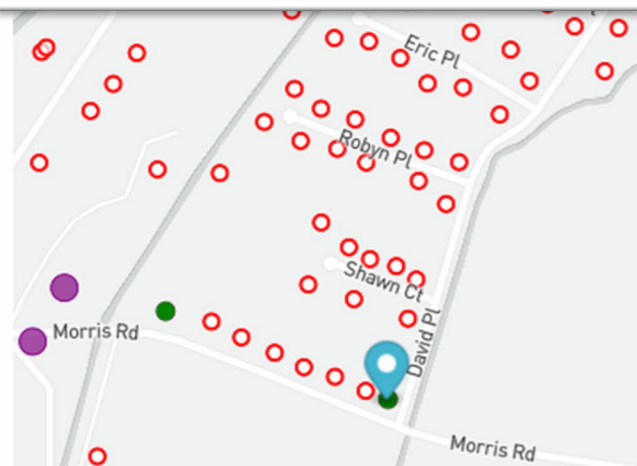
FCC BDC: Many Provider Claims at each Location



1280 MORRIS RD SE
LOS LUNAS, NM 87031
Status: **Not Served** | Residential | Unit Count: 1
No location data.

Broadband Availability

| Provider | Technology | Down (Mbps) | Up (Mbps) |
|--|---------------------------|-------------|-----------|
| ▶ Hughes Network Systems, LLC | GSO Satellite | 25 | 3 |
| ▶ Lumen Technologies, Inc. | Copper | 100 | 10 |
| ▶ PCC Holdings, Inc. | Unlicensed Fixed Wireless | 0.2 | 0.2 |
| ▶ Space Exploration Technologies Corp. | NGSO Satellite | 220 | 25 |

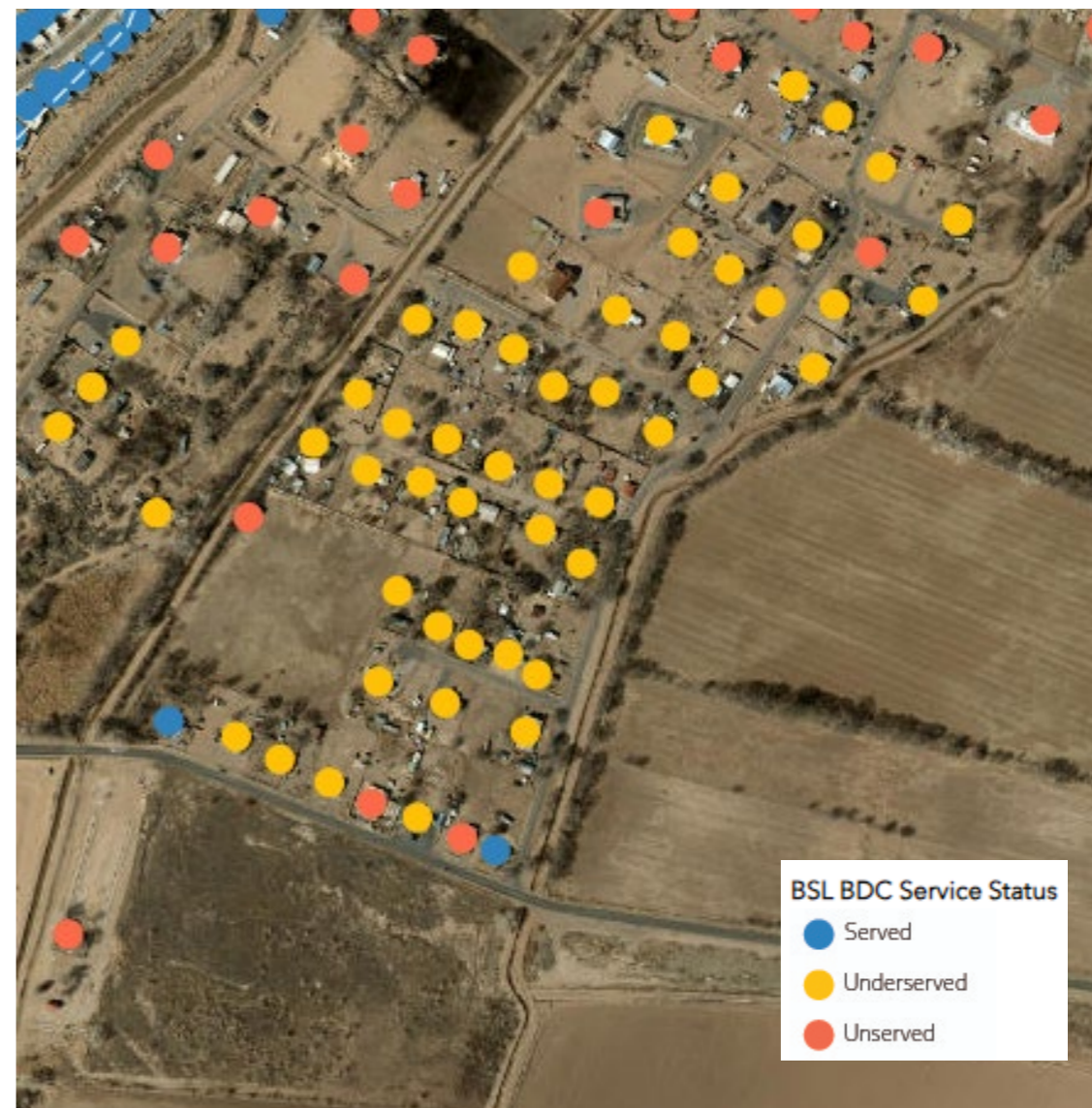


Broadband Availability

| Provider | Technology | Down (Mbps) | Up (Mbps) |
|--|---------------------------|-------------|-----------|
| ▶ ATN International, Inc. | Licensed Fixed Wireless | 0.2 | 0.2 |
| ▶ Hughes Network Systems, LLC | GSO Satellite | 25 | 3 |
| ▶ Lumen Technologies, Inc. | Copper | 100 | 10 |
| ▶ PCC Holdings, Inc. | Unlicensed Fixed Wireless | 0.2 | 0.2 |
| ▶ Space Exploration Technologies Corp. | NGSO Satellite | 220 | 25 |
| ▶ Verizon Communications Inc. | Licensed Fixed Wireless | 300 | 20 |

- Map Legend**
- Coverage available
 - Coverage not available
 - Not a mass market location
 - Location Challenge
 - Missing Location
 - Availability Challenge

Service Status: Ranked on Best Available



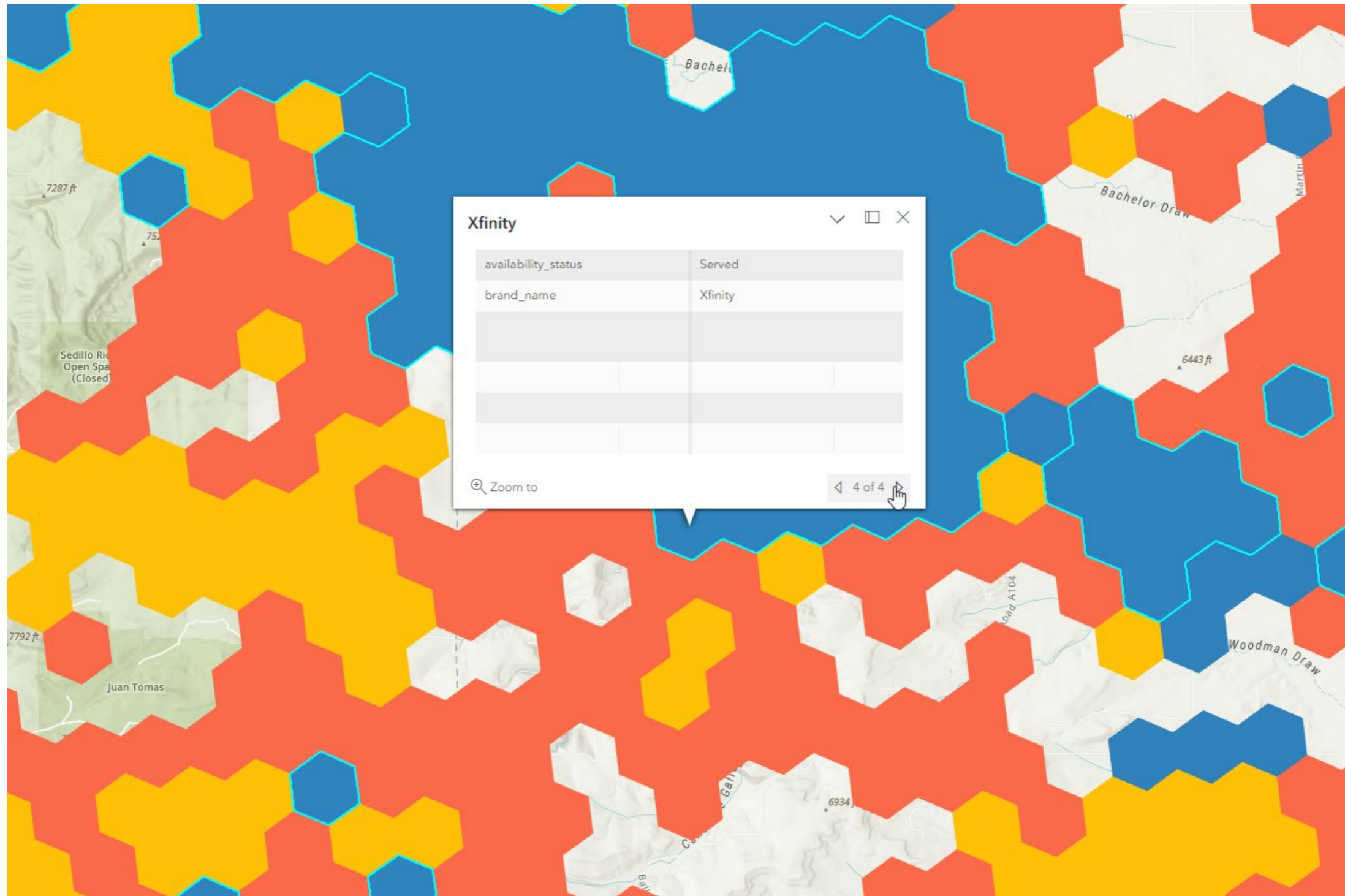
Many claims but one status per location.

Provider Claims, relative to Status

BSL BDC Service Status

- Served
- Underserved
- Unserved

Data Concepts



All Community Institutions, and BEAD Eligible: Target 1Gbps symmetrical

New Mexico Broadband Grant Program Map

Last edited December 2023. For questions or feedback, [contact us](#).

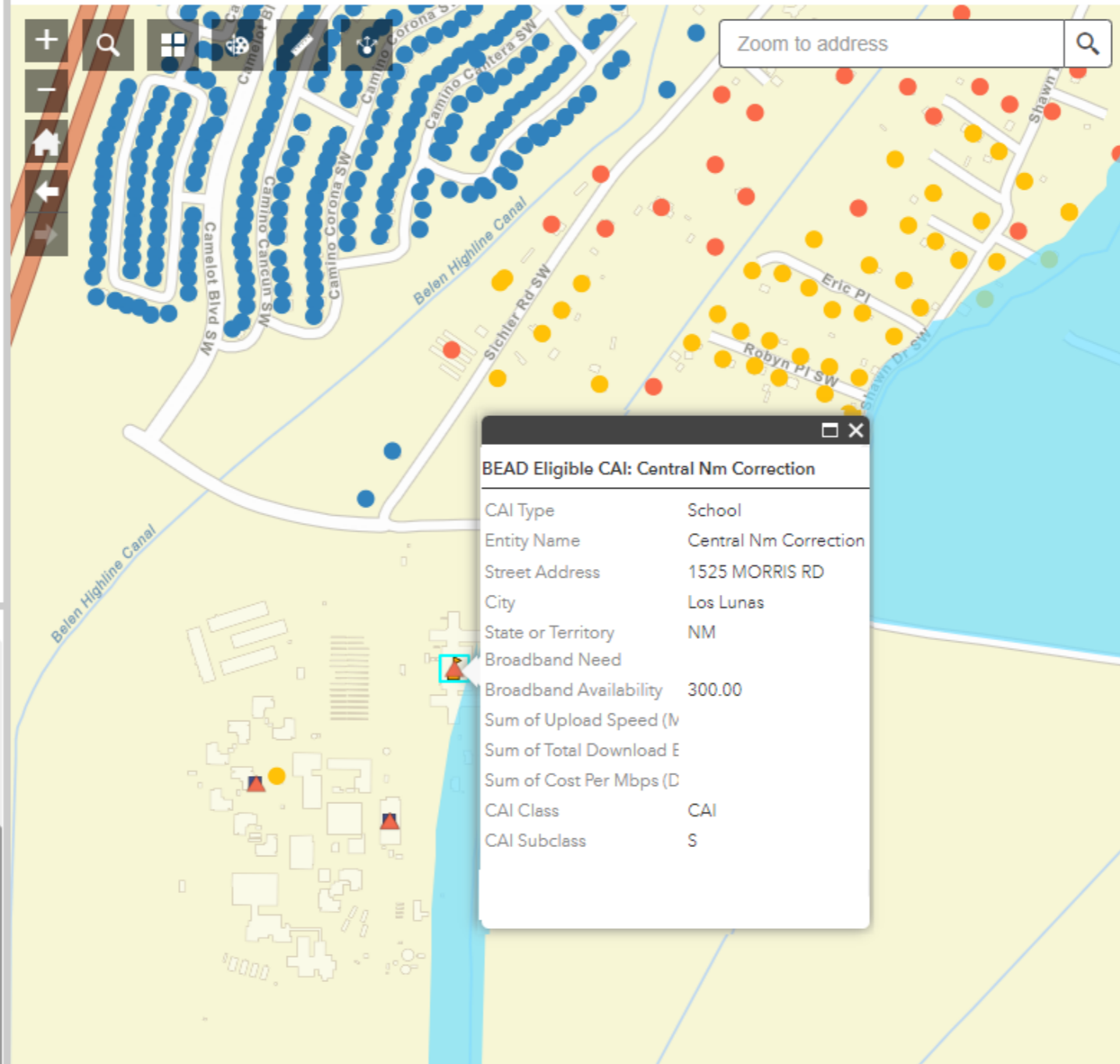
Grant Eligibility Statistics

Layers

- BEAD Eligible CAIs
- Tribal Land
- BEAD Eligible BSLs (FCC Deduplicated V3 June 2023, as Adjudicated)
- NM Best BSLs (Ongoing Challenges and Local Intel)

General Funded Areas

- Commission (PRC) (2018-2023)
- Community Connect Grant Program
- Connect America Fund - Phase I (CAF I)
- Connect America Fund - Phase II (CAF II)
- Enhanced Alternative Connect America Cost Model (E-ACAM)
- FCC 2.5 GHz Rural Tribal Applications
- Rural Digital Opportunity Fund (RDOF)



About Speed Test

BSL BDC Service Status

- Served
- Underserved
- Unserved

The New Mexico Grant Program

The New Mexico Grant Program Reference Map is maintained by the New Mexico Broadband Program (NMBBP). This interactive map allows users to view broadband data to support grant applicants.

NM Broadband Maps

<https://maps.connect.nm.gov/>

Office of Broadband Access & Expansion

<https://connect.nm.gov/>

Legend Print

BEAD Eligible CAIs

- ▲ Rural Digital Opportunity Fund (RDOF)

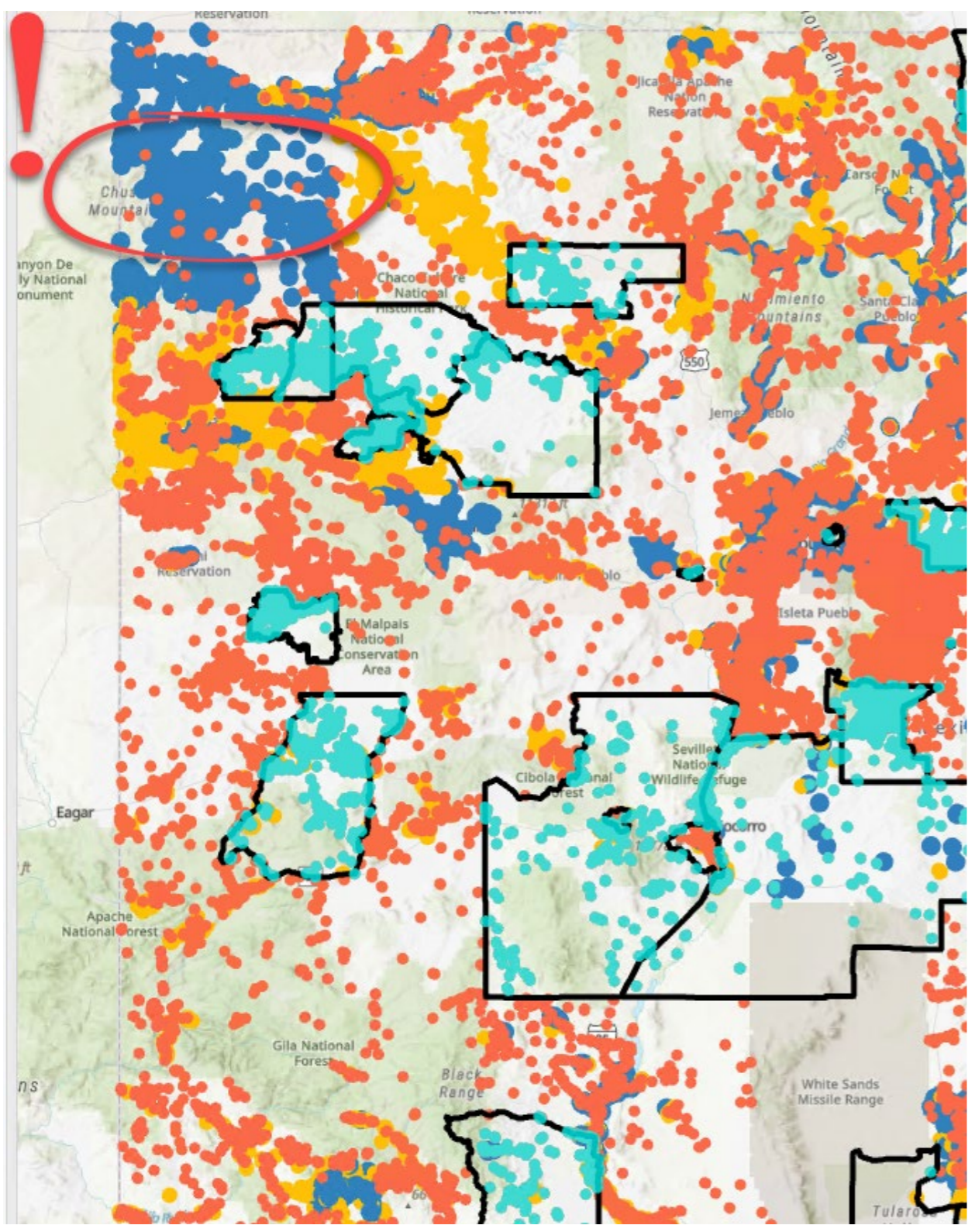
Community Institutions

- Education
 - School (K-12)
- Government Resource

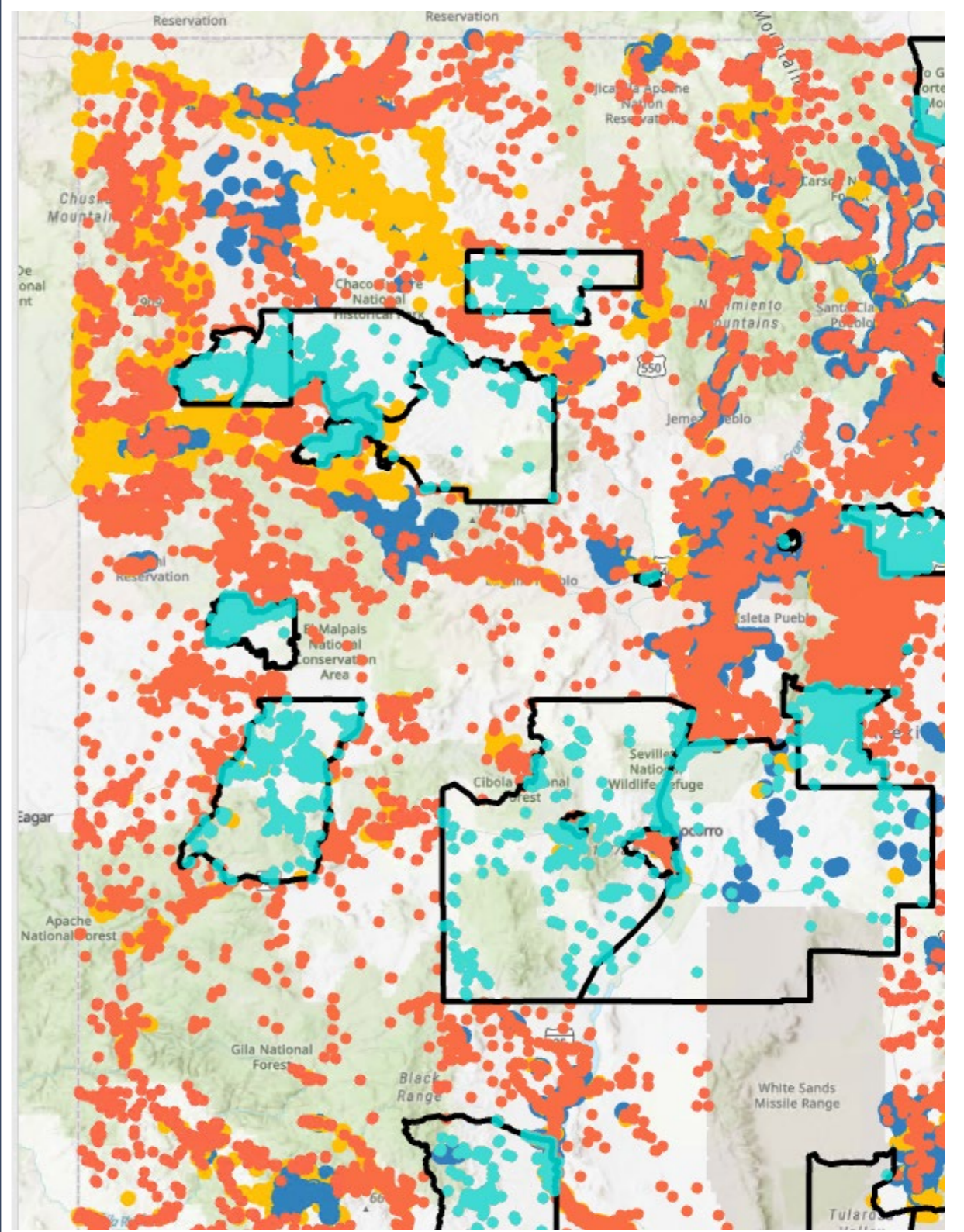
"NM Best" for context

- BSL BDC Service Status
- Served (Blue dot)
 - Underserved (Yellow dot)
 - Unserved (Red dot)

FCC Official & Deduplicated



NM Best for months until new FCC



1 Summary Numbers by Scenario

NM Broadband: Service Availability Status

Step 1 Select a Boundary State
Step 2 Select a Place within New Mexico

NM Broadband Internet Service Availability

ALERT: PIE CHARTS CAN BE SLOW TO LOAD AND REFRESH depending on user connection speeds.

The map shows broadband serviceable locations according to the latest data published by the FCC.

The pie charts compare the service available at known locations and can be filtered using the selectors in the top right corner of the dashboard. Unserved locations have internet speeds of less than 25Mbps download and 3Mbps upload (25/3), and Served locations have speeds of 100/20 or greater.

FCC Official is the latest data published by the FCC, which represents the maximum speeds currently available at each location. **BEAD Eligible** is the service expected to be available once all current Federal and State grants are built out. **NM Best** is the latest official FCC locations (BSL Fabric), plus any ongoing updates to either location or service status. Data in NM Best has not necessarily been adjudicated by FCC yet.

NOTE: Pie charts are based on filter selections, not map extent.

Please direct questions about the data or the application to OBAE-GIS@state.nm.us.

| Scenario | Served | Underserved | Unserved |
|---|--------|-------------|----------|
| FCC Official V3.2 June 2023, as Adjudicated | 81.3% | 7% | 11.7% |
| BEAD Eligible FCC Deduplicated V3.2 June 2023, as Adjudicated | 86.5% | 7% | 6.5% |
| NM Best FCC V3.2 plus Ongoing Challenges | 81.5% | 7.2% | 11.3% |

3 General Reference

New Mexico Broadband Map NM DoIT Office of Broadband Access and Expansion

Enter address

Layer List

- WiFi Hotspots
- Community Institutions
- Funding Areas
- NM Structures
- NM Structure - Zoom in to view
- Telecom Resources
 - State Telecom Site
 - Fiber
 - No Fiber
 - Other Telecom Site
- NMPBS Towers
 - KENW-TV
 - KNME-TV
 - KRWG-TV
- Telephone Exchange Boundary
- Administrative Boundaries
 - County Boundary
 - Colonia
 - Rural Census Place (Population 20,000 or less)
 - Incorporated Place

2 Grant Application Planning

New Mexico Broadband Grant Program Map

Last edited December 2023. For questions or feedback, [contact us](#).

Grant Eligibility Statistics

Layers

- BEAD Eligible CAls
- Tribal Land
- BEAD Eligible BSLs (FCC Deduplicated V3 June 2023, as Adjudicated)
- NM Best BSLs (Ongoing Challenges and Local Intel)

General Funded Areas

Layers

- NM 911 Address Point - Zoom in to view
- Minority Serving Institution (NTIA MSIs)
- Navajo Nation Chapterhouse
- Incorporated Place
- Colonia
- Land Grants
- Rural Census Place (Population 20,000 or less)
- Economic Opportunity Zone
- Tribal Land

BSL BDC Service Status

- Served
- Underserved
- Unserved

Rural Digital Opportunity Fund (RDOF)

NM 911 Address Point - Zoom in to view

Community Institutions

- ▲ Public Safety
 - ▲ Emergency Operations Center (EOC)
 - ▲ Fire Station
 - ★ Law Enforcement
- ♦ Education
 - ♦ Early Childhood Facility
 - ♦ School (K-12)
- Government Resource

4 Grant Area Challenges

New Mexico Broadband Grant Program Map

Last edited December 2023. For questions or feedback, [contact us](#).

Grant Eligibility Statistics

Layers

- BEAD Eligible CAls
- Tribal Land
- BEAD Eligible BSLs (FCC Deduplicated V3 June 2023, as Adjudicated)
- NM Best BSLs (Ongoing Challenges and Local Intel)

General Funded Areas

Layers

- NM 911 Address Point - Zoom in to view
- Minority Serving Institution (NTIA MSIs)
- Navajo Nation Chapterhouse
- Incorporated Place
- Colonia
- Land Grants
- Rural Census Place (Population 20,000 or less)
- Economic Opportunity Zone
- Tribal Land

BSL BDC Service Status

- Served
- Underserved
- Unserved

Rural Digital Opportunity Fund (RDOF)

NM 911 Address Point - Zoom in to view

Community Institutions

- ▲ Public Safety
 - ▲ Emergency Operations Center (EOC)
 - ▲ Fire Station
 - ★ Law Enforcement
- ♦ Education
 - ♦ Early Childhood Facility
 - ♦ School (K-12)
- Government Resource

Summary Numbers by Scenario

NM Broadband: Service Availability Status

Step 1 Select a Boundary Telephone Exchange

Step 2 Select a Place wi... Leaco Rural Telephone ...

NM Broadband Internet Service Availability

ALERT: PIE CHARTS CAN BE SLOW TO LOAD AND REFRESH depending on user connection speeds.

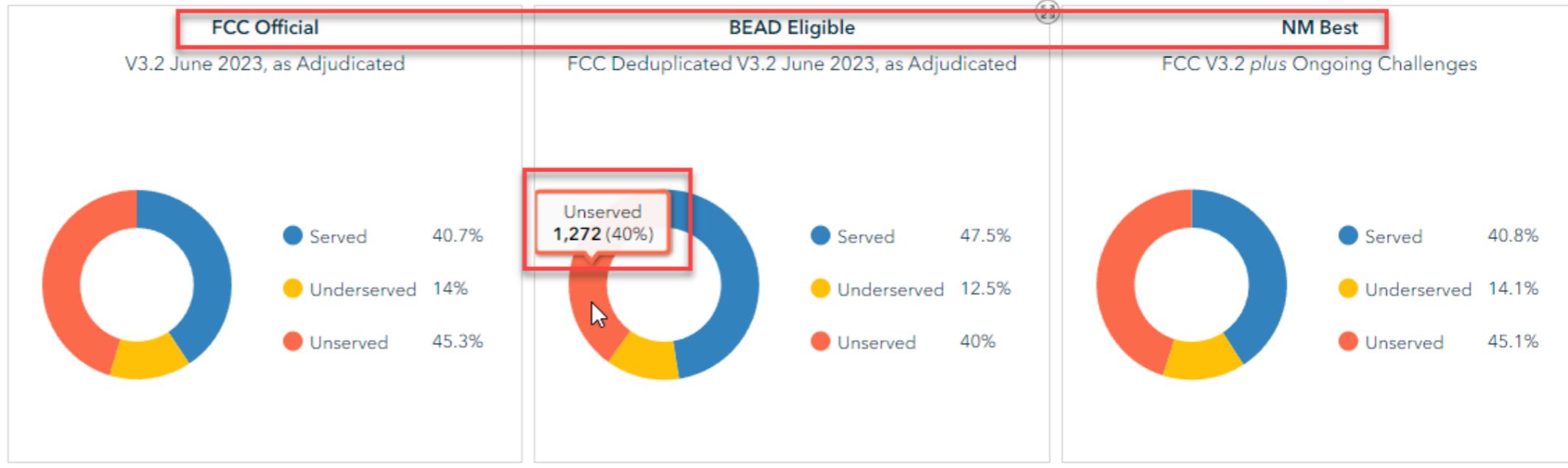
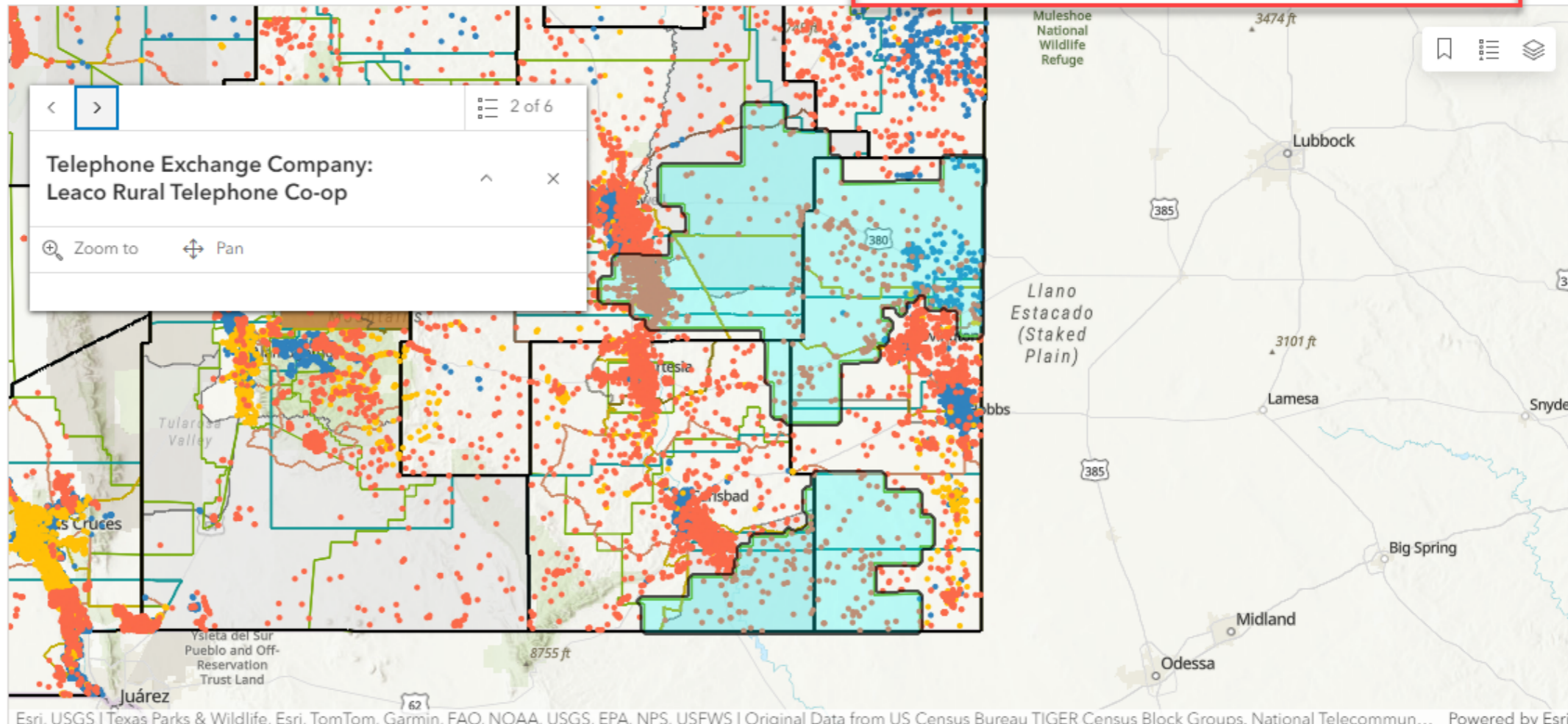
The map shows broadband serviceable locations according to the latest data published by the FCC.

The pie charts compare the service available at known locations and can be filtered using the selectors in the top right corner of the dashboard. Unserved locations have internet speeds of less than 25Mbps download and 3Mbps upload (25/3), and Served locations have speeds of 100/20 or greater.

FCC Official is the latest data published by the FCC, which represents the maximum speeds currently available at each location. **BEAD Eligible** is the service expected to be available once all current Federal and State grants are built out. **NM Best** is the latest official FCC locations (BSL Fabric), plus any ongoing updates to either location or service status. Data in NM Best has not necessarily been adjudicated by FCC yet.

NOTE: Pie charts are based on filter selections, not map extent.

Please direct questions about the data or the application to OBAE-GIS@state.nm.us.



Grant Application Planning

New Mexico Broadband Grant Program Map

Last edited December 2023. For questions or feedback, [contact us](#).

Grant Eligibility **Statistics**

Layers

- BEAD Eligible CAIs
- Tribal Land
- BEAD Eligible V3 June 20
- NM Best B...

Zoom to

Transparency

Set visibility range

Disable pop-up

Move up

Move down

View in Attribute Table

Description

General **Funded Areas** **Proposed**

Layers

- NM 911 Address Point - Zoom in to view
- Minority Serving Institution (NTIA MSIs)
- Navajo Nation Chapterhouse
- Incorporated Place
- Colonia
- Land Grants
- Rural Census Place (Population 20,000 or less)

About **Speed Test**

BSL BDC Service Status

- Served
- Underserved
- Unserved

Legend **Print**

Rural Digital Opportunity Fund (RDOF)

NM 911 Address Point - Zoom in to view

Community Institutions

Public Safety

- Emergency Operations Center (EOC)
- Fire Station
- Law Enforcement

Education

- Early Childhood Facility
- School (K-12)

Government Resource

Zoom to address

Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc...

General Reference

New Mexico Broadband Map NM DoIT Office of Broadband Access and Expansion

The screenshot displays the New Mexico Broadband Map web application. The interface includes a top navigation bar with the title and logo, a search bar, and a toolbar with icons for layers, home, print, and refresh. A left sidebar contains a Layer List with various categories. The main map area shows a topographic view of Taos County, New Mexico, with numerous colored markers representing different telecom resources. The map also displays county boundaries, major roads, and geographical features like the Rio Grande del Norte National Monument and Carson National Forest.

Layer List:

- WiFi Hotspots
- Community Institutions
- Funding Areas
- NM Structures
- NM Structure - Zoom in to view
- Telecom Resources
 - State Telecom Site
 - Fiber
 - No Fiber
 - Other Telecom Site
- NMPBS Towers
 - KENW-TV
 - KNME-TV
 - KRWG-TV
- Telephone Exchange Boundary

- Administrative Boundaries
- County Boundary
- Colonia
- Rural Census Place (Population 20,000 or less)
- Incorporated Place

What Data to Send to Us?

Proposed Project Area Boundary

- Polygon (endpoints meet)
- file geodatabase or shapefile or KMZ/KML
- Data Fields/Attributes
 1. FamiliarName

Proposed Key Infrastructure

- Points or lines for features like towers or fiber routes
- file geodatabase or shapefile or KMZ/KML
- Data Fields/Attributes
 1. FamiliarName
 2. FeatureType

Locations to be Served

- Points
- file geodatabase or shapefile or KMZ/KML or CSV or XLSX
- Data Fields/Attributes (if mixed)
 1. TechnologyType = fiber/FTTP, fixed wireless
 2. Upload (Mbps) = (number)
 3. Download (Mbps) = (number)

CostQuest Fabric Licenses[^]: FCC BDC versus NTIA

You must have a fully-executed CostQuest License to access any OBAE value-added BSL map layers.

Which license can you get?

- **FCC Broadband Data Collection (BDC)** = <https://www.costquest.com/broadband-serviceable-location-fabric/>
 - **HOW?** <https://help.bdc.fcc.gov/hc/en-us/articles/5377509232283-How-Broadband-Service-Providers-Can-Access-the-Location-Fabric>
 - Developed for submitting Fabric corrections as well as submitting broadband availability and availability challenges through the FCC Broadband Data Collection
 - Requires an FCC Registration Number (FRN): <https://www.fcc.gov/wireless/support/knowledge-base/universal-licensing-system-uls-resources/getting-fcc-registration>

| License Tier | License Description | Licensee |
|--------------|--|--|
| Tier 1 | Rights to use in BDC, the National Broadband Map, and the National Broadband Funding Map. | FCC |
| Tier 2 | Rights to create BDC filing data, create challenge data, and share with other licensees. | ISPs, State, Local, and Tribal Government Entities |
| Tier 2a | Tier 2 rights + ability to create consumer-facing Broadband coverage maps, create derivative reports, and collect coverage information from other Tier 2 entities. | Designated Entities |
| Tier 3 | Rights to publish summary results of coverage, create an online map, and create challenges. | US Government Entities |
| Tier 4 | Rights to create challenge data. | Other Parties |
| Tier 4R | Rights to use the Fabric data for Research efforts. | Research |

[^] Connect NM Fund is a state-based grant program, and thus is not an authorized use of the FCC BDC or NTIA CostQuest licenses. NM OBAE is inquiring about authorization for this supplemental use type.

CostQuest Fabric License ^ : FCC BDC versus NTIA

You must have a fully-executed CostQuest License to access any OBAE value-added BSL map layers.

Which license can you get?

- **NTIA Fabric License** = <https://www.costquest.com/ntia-broadband-serviceable-location-fabric-faq/>
- **HOW?** <https://broadbandusa.ntia.doc.gov/policies/CostQuest-Licensing>
- Developed to support the BEAD program and other federal broadband programs available today or in the future and facilitate compliance with reporting obligations associated with such programs
- Once you have received a Tier D license that covers the counties of your award, you can exchange the location_id(s) and broadband availability information corresponding to the reporting requirement.

| License Tier | Licensee | Description | Availability |
|--------------|--|---|-----------------------------------|
| Tier A | NTIA | NTIA, its agents, and any NTIA-established entities | Complete |
| Tier B | Federal Broadband Granting Agencies | Includes any federal agency that administers a federal financial assistance program that supports or promotes broadband deployment, use, or adoption | Available on request through NTIA |
| Tier C | Pass Through Entities | Includes Broadband Grant Program recipients that are a State, local government, Tribal Entity, Institution of Higher Education, or nonprofit organization | Available on request through NTIA |
| Tier D | Prospective and awarded Recipients and Subrecipients | Entities that participate in Federal Broadband Programs | Available |
| Tier E | Licensee-Pass Through Entity Challengers | Entities that will challenge Pass Through Entity coverage maps. | Available through States |

^ Connect NM Fund is a state-based grant program, and thus is not an authorized use of the FCC BDC or NTIA CostQuest licenses. NM OBAE is inquiring about authorization for this supplemental use type.

State of NM Structures: Other potential sources

Submitting your own address data in tabular form is allowable. If you DO NOT have points/addresses:

Validate your addresses with NM911 structures from RGIS

- **Data Clearinghouse** = <https://rgis.unm.edu/rgis6/dataset.html?uuid=1655f414-2649-48a6-82d7-0caded9f0ae8>
- **HOW?** Download preferred format, summarize points within your PPA
- Developed to dispatch first responders to incidents, these points don't necessarily fall on the structure, but can be a good surrogate to create a count of serviceable locations.

New Mexico Address Points - December 2023

Abstract

New Mexico Address Point data are an aggregated resource for address points across the state. These data are contributed by local governments for NM911 Program purposes.

Downloads

[zip](#) [gml](#) [kml](#) [geojson](#) [json](#) [csv](#) [xls](#)

Services

[wms](#) [wfs](#)

Submit PPA and OBAE will calculate the location counts

- **E-mail request** = OBAE-GIS@state.nm.us (as linked in all map apps)
- **HOW?** Submit your table of addresses and your PPA polygon
- Earth Data Analysis Center has an address geocoding service that uses both commercial and local data sources.
- Ensure that polygons close and your address data are clean.

Interactive Demo:

New Mexico Broadband Grant Program Map

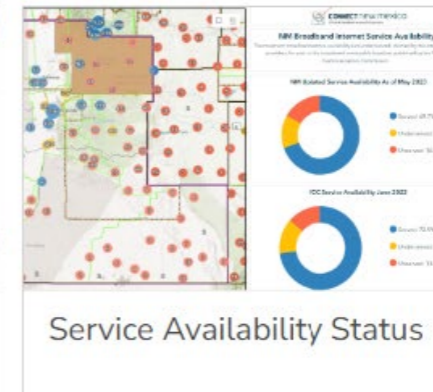
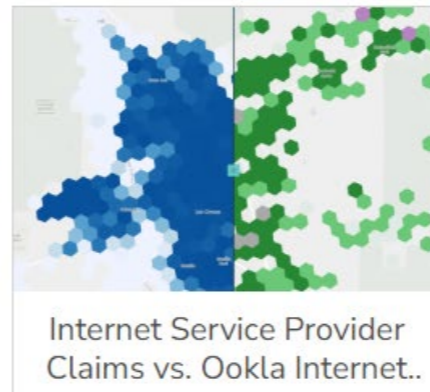
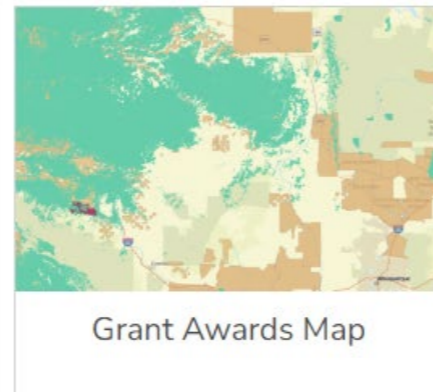
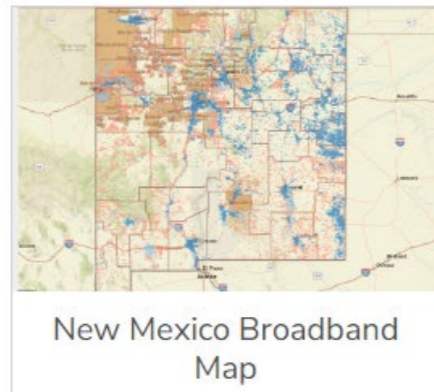
Last edited December 2023. For questions or feedback, [contact us](#).

The screenshot displays the New Mexico Broadband Grant Program Map interface. The map shows a geographic area with various layers and data points. The interface includes several panels and controls:

- Grant Eligibility Panel (Top Left):** Contains a **Statistics** tab (highlighted with a red box) and a **Layers** list. The layers list includes: BEAD Eligible CAIs, Tribal Land, BEAD Eligible V3 June 20, and NM Best Business and Local Infrastructure. A context menu is open over the BEAD Eligible V3 June 20 layer, with options: Zoom to, Transparency, Set visibility range, Disable pop-up, Move up, Move down, **View in Attribute Table** (highlighted with a red box), and **Description** (highlighted with a red box).
- Map Area (Center):** Shows a map with various data points (blue, yellow, red circles) and infrastructure (roads, rivers, canals). A search bar at the top right says "Zoom to address". A red arrow points from the "View in Attribute Table" button to a specific data point on the map.
- General Panel (Bottom Left):** Contains a **Funded Areas** tab and a **Layers** list. The layers list includes: NM 911 Address Point - Zoom in to view, Minority Serving Institution (NTIA MSIs), Navajo Nation Chapterhouse, Incorporated Place, Colonia, Land Grants, and Rural Census Place (Population 20,000 or less).
- Right Panel (Right Side):** Contains an **About** tab (with a **Speed Test** button highlighted in red) and a **Legend** tab (with a **Print** button highlighted in red). The legend includes: BSL BDC Service Status (Served, Underserved, Unserved), Rural Digital Opportunity Fund (RDOF), NM 911 Address Point - Zoom in to view, Community Institutions (Public Safety: Emergency Operations Center (EOC), Fire Station, Law Enforcement; Education: Early Childhood Facility, School (K-12); Government Resource).

Closing Remarks

- <https://maps.connect.nm.gov> will link to all maps



- Apply for CostQuest license if appropriate & eligible = Tier D
- Submit your ideas for map/tool improvements
- Use the NOFO for detailed guidance.
- Submit map questions to obae-gis@state.nm.us, and grant questions to broadband@connect.nm.gov
- Attend the webinars
 - Scoring Guide Overview: January 12, 2024 (2:00 pm MT)
 - Application Overview: January 16, 2024 (2:00 pm MT)