Background Material for the Third Meeting of the

Economic & Rural Development & Policy Committee

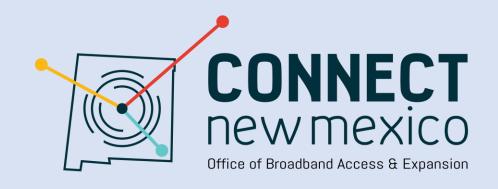
Office of Broadband Access & Expansion

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Additional Resources Broadband 101: Why Broadband



Health

- · Telehealth visit
 - From home
 - From clinic
 - Specialists
 - Reduced Wait times
 - Reduced wait times

Education

- State Education Network
 - Connect schools with one another
 - · Connect children to resources
 - Online education Opportunities
 - Flexibility
- Tutoring
- · Language services
- Digital Equity

Entertainment

- Streaming
- Gaming
- Music
- Books

Business

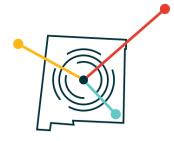
- Credit Cards
- Support Services
- Sales
- Remote/Hybrid Work

Other: Quality of Life

- Government Services: E-Government, taxes, etc
- Real Time Communications
- Internet of Things
- Security systems
- Shopping
- Commerce



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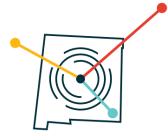
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<u>Additional Resources</u> <u>Broadband 101: Technology Types</u>



Wireless:

- Data transmitted through airwaves.
- Slower speeds (typically in Mbps).
- Shared bandwidth, can be affected by network traffic.
- Prone to interference (e.g., weather, physical obstacles).
- Higher latency (delay in data transfer).

Fiber:

- Data transmitted via optical cables.
- Only truly symmetrical tech type (e.g., 100/100 Mbps)
- Faster speeds (often in Gbps).
- Dedicated bandwidth, consistent performance.
- Highly reliable, immune to most interference.
- Low latency, ideal for real-time applications.

Satellite:

- Data transmitted via orbiting satellites.
- Slower speeds (typically in Mbps).
- Shared bandwidth, affected by network congestion
- Prone to interference (e.g., weather conditions).
- High latency due to the distance to orbiting satellites.

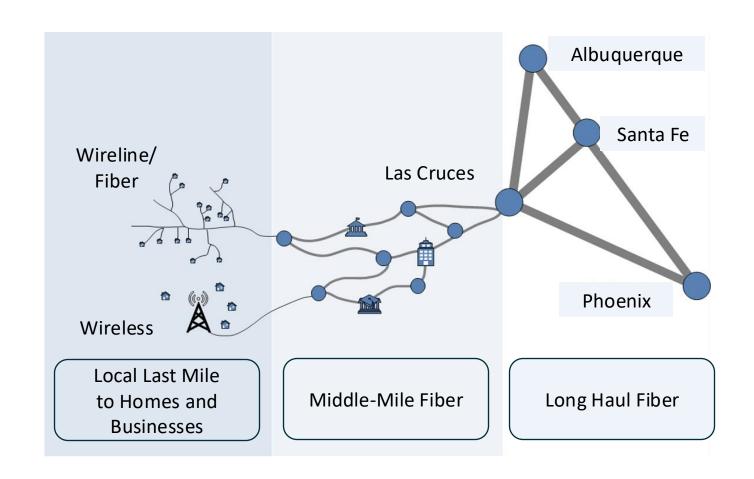
DSL:

- Data transmitted via signals carried over traditional copper phone lines.
- Shares bandwidth with other users in the same neighborhood.
- Slower speeds (typically in Mbps).
- Prone to slowdowns during peak usage times.
- Susceptible to interference, especially over long distances.
- High latency, usually due to network congestion



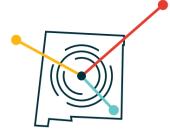
Additional Resources Broadband 101: Elements of a Broadband Network

- Long haul fiber
- Middle mile fiber
- Last mile (wireline or wireless)





<u>Additional Resources</u> <u>Mapping: Changes</u>



2023

 Approximately 140k locations unserved and underserved

2024

- Approximately 72k BEAD eligible locations* (expected to change final BEAD numbers pending NTIA approvals)
- Currently anticipate approximately 45K to 55k to be approved by NTIA



Additional Resources Mapping: Changes



Locations removed and added:

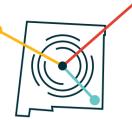
- Grants
- Internet Service Provider Corrections
- Service challenges
- Enforceable Commitments

What this can mean:

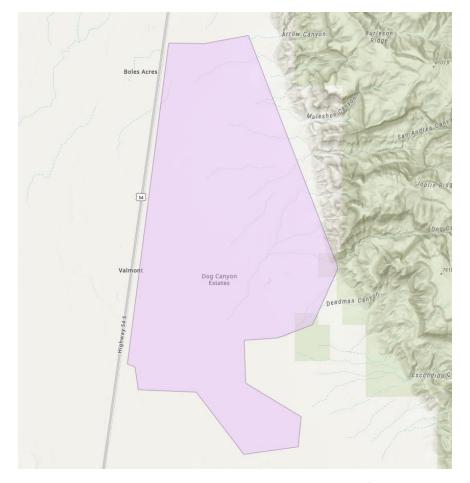
- A home does not have internet today
- Will get service from now until 2035 funded by State and Federal funding



<u>Additional Resources</u> <u>Mapping: Examples of Deconfliction</u>



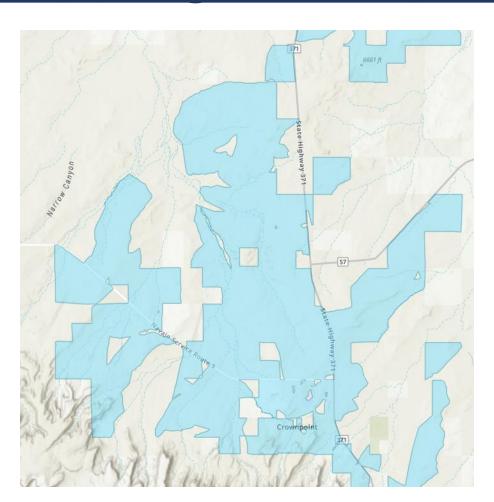
- 630 locations
- APRA CPF (CNM Pilot)
- Currently not connected
- Build expected to be complete
 Q1 2025





<u>Additional Resources</u> <u>Mapping: Examples of Deconfliction</u>





- Federal Program awarded
- No ROW or Permitting allowed by Tribal Entity
- Locations are off the map, but will not be built to
- Pending FCC and NTIA decisions
 +/- 10k locations

Additional Resources Acronyms:



- ARPA American Rescue Plan Act
- CPF Capital Projects Fund
- BEAD Broadband Equity Access Deployment
- DE Digital Equity
- DoIT Department of Information Technology
- FCC Federal Communication Commission
- MOU Memorandum of Understanding
- NTIA National Telecommunications and Information Administration
- OBAE Office of Broadband Access and Expansion
- PSFA Public School Facilities Authority
- ROW Rights of Way
- SEN State Education Network
- USDA United State Department of Agriculture



Additional Resources Websites



OBAE Homepage

https://connect.nm.gov/

Mapping

https://connect.nm.gov/nm-broadband-mapping.html

Broadband Project Video

https://youtu.be/Altg8BOP-Ww?si=v5v nMbZDfGwAJwm

