



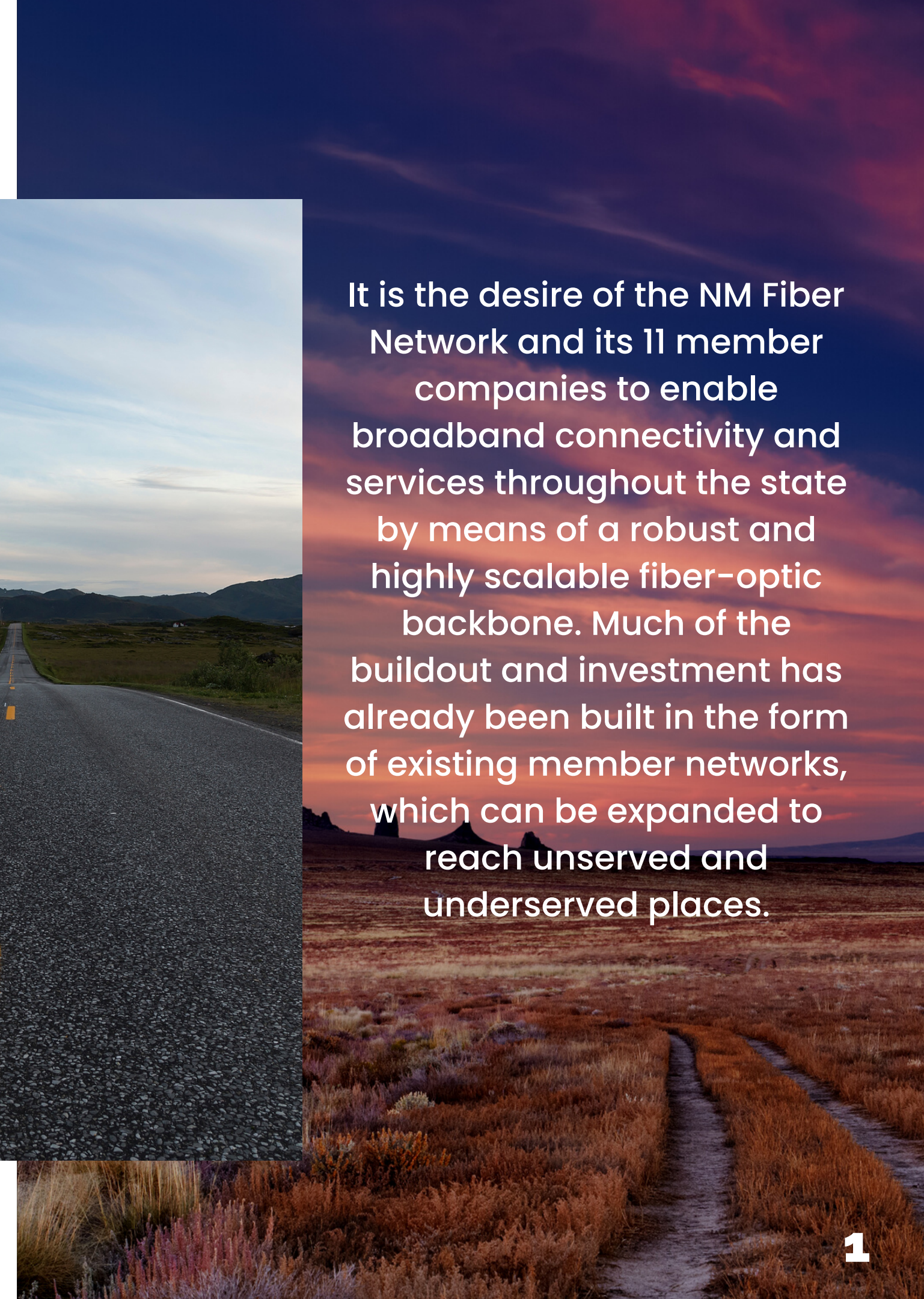
Presentation to:
New Mexico Science, Technology & Telecommunications
Committee

August 08, 2022- Socorro, NM

NM FIBER NETWORK IS THE SOLUTION TO MIDDLE MILE.



It is the desire of the NM Fiber Network and its 11 member companies to enable broadband connectivity and services throughout the state by means of a robust and highly scalable fiber-optic backbone. Much of the buildout and investment has already been built in the form of existing member networks, which can be expanded to reach unserved and underserved places.





EXECUTIVE SUMMARY

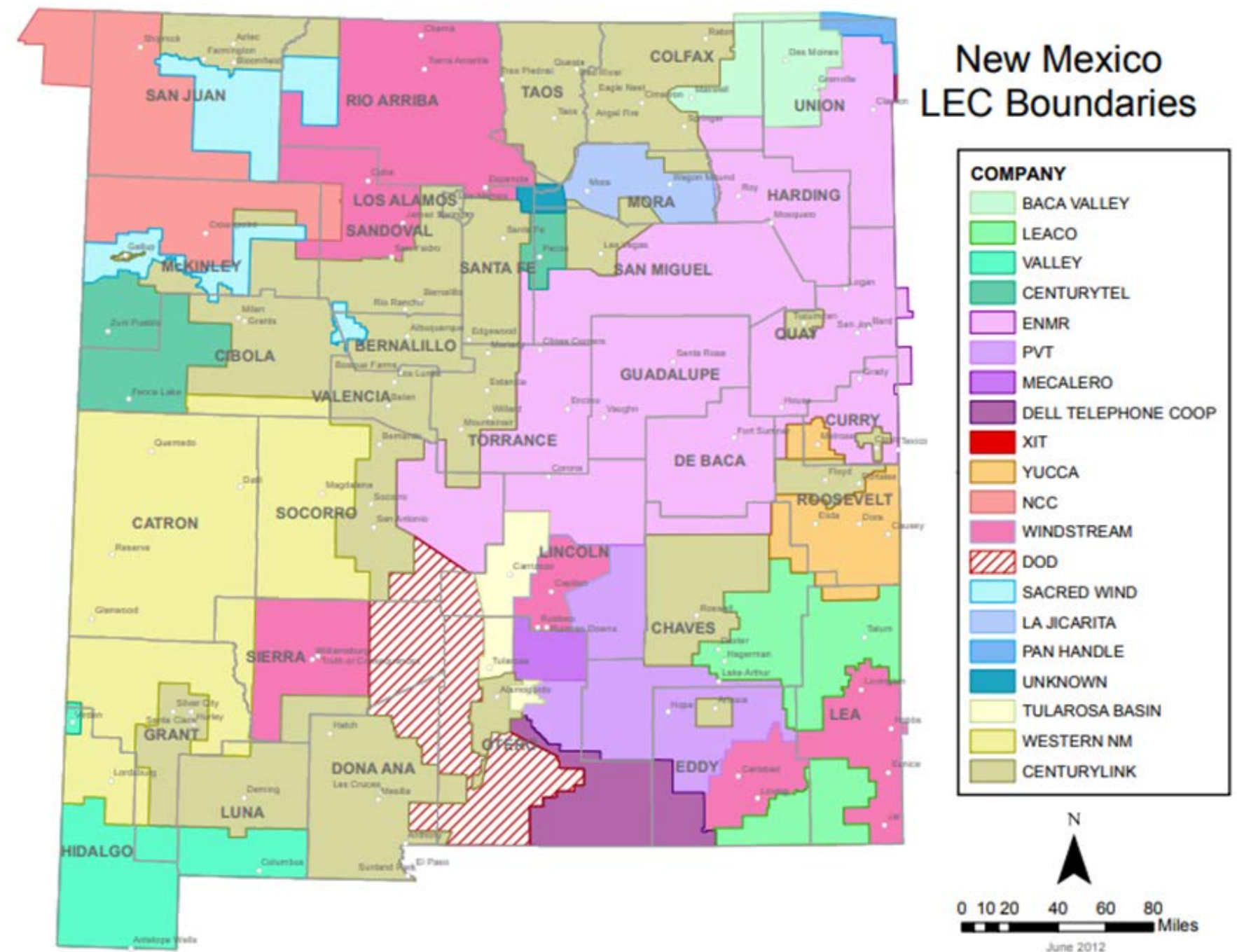
NM Fiber Network seeks to utilize the existing fiber networks of its 11 founding members to address the Statewide Open Access Middle Mile Network Initiative with the intent of both introducing itself as a recently formed fiber-based, middle mile entity with interests that align closely with those of the State. The expertise of member companies can be used to provide guidance and opinion on the development of the Statewide Open Access Middle Mile Network.

NM Fiber Network's member organizations bring an average of 60 years of experience in the telecommunications industry and about 700 employees collectively, uniquely positioning us to operate and maintain a Statewide network.

The Statewide Open Access Middle Mile Network Initiative is a perfect opportunity for a public-private partnership that helps to maximize the potential for assembling and equipping a network by leveraging grant-based funding to ensure affordable access.

WHO WE ARE

- **11 INTERNET PROVIDERS WITH OVER 12,000 MILES OF FIBER ALREADY DEPLOYED**
- **EXPERT OPERATORS WITH 24/7 NETWORK MANAGEMENT**



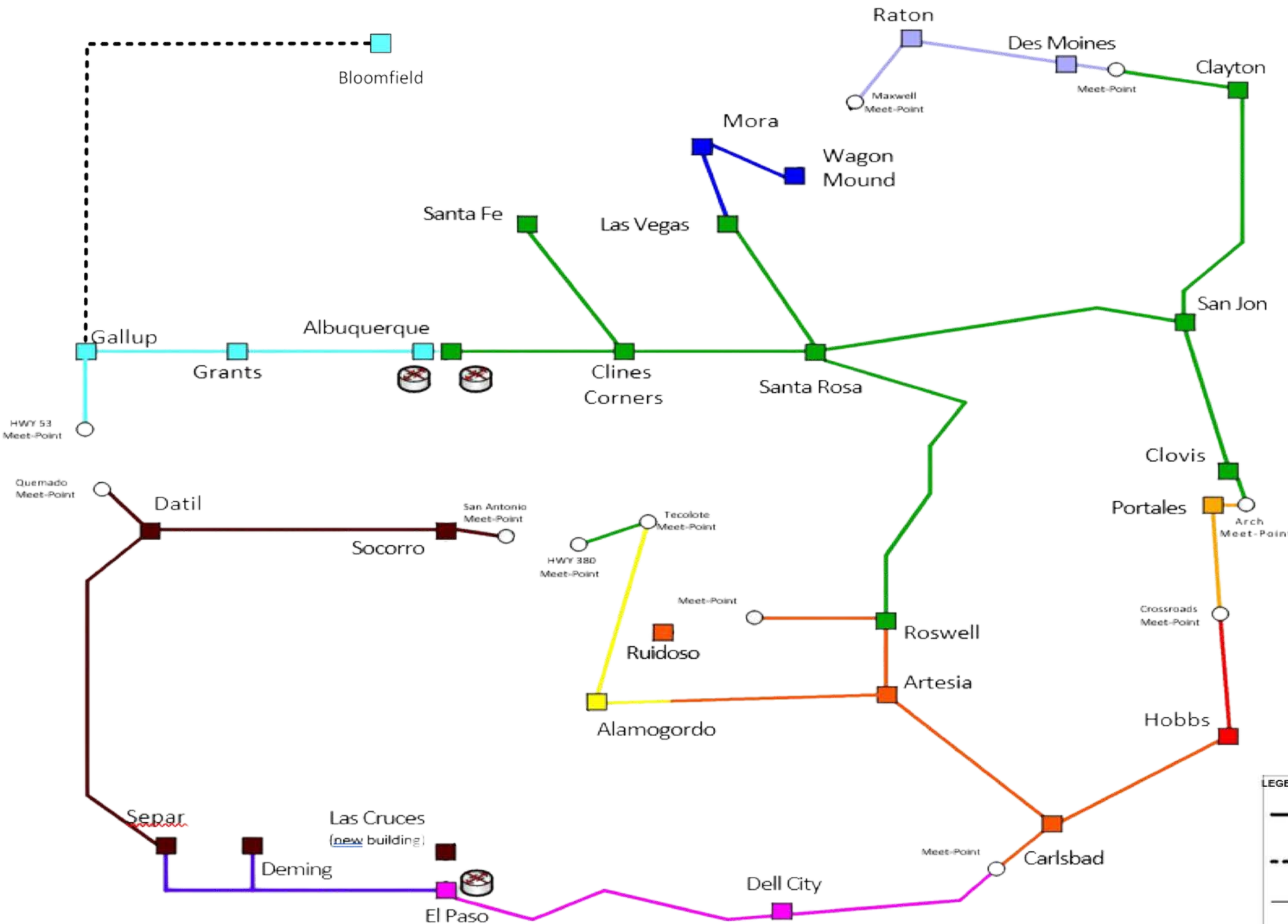
NM Fiber Network, LLC is a collection of 11 member companies, all of which are New Mexico local exchange telephone companies, that together account for more than 58% of the geographic area of New Mexico.

Over time and through the operation of their businesses, each of these companies has built out significant fiber-based networks which enable robust service delivery within their footprints. Many strategic interconnects have already been formed between our companies for the purpose of exchanging assorted services.

Recognizing the potential to come together in order to enhance the reach, efficiency, and value of their networks by working in unison. NM Fiber Network is now working quickly to identify initiatives such as this which seek to broaden and strengthen the level of service provided throughout the state.

FIBER ROUTES

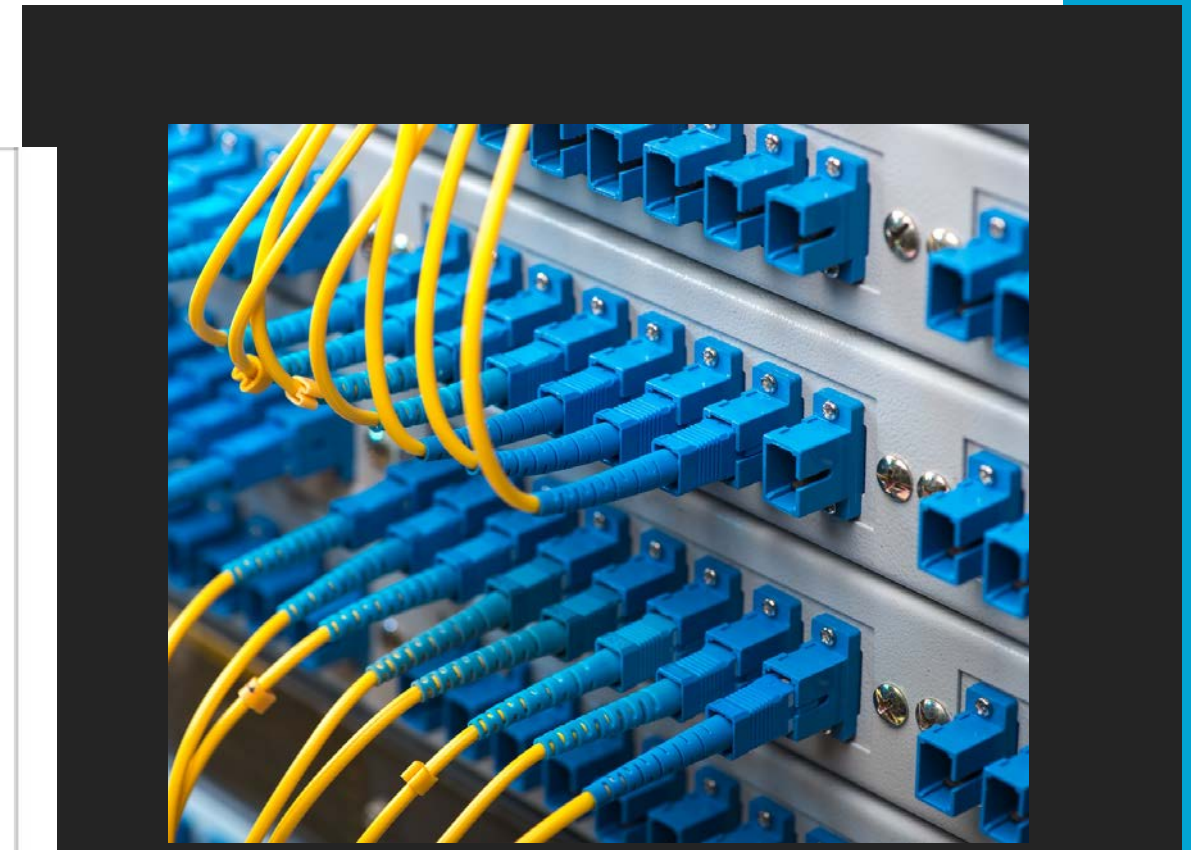
NM Fiber Network's member companies have existing fiber routes that deliver high speed bandwidth throughout the state. Collectively, they serve the majority of over 1500 anchor institutions in New Mexico. It is NM Fiber Network's vision, that through additional construction of middle-mile, it will be able to better serve anchor institutions and provide scalable networks to businesses in New Mexico for generations to come.



LEGEND

- High Capacity Ring/Route (Existing)
- - - High Capacity Ring/Route (Build)
- Sub-Tended Ring/Route (Existing)
- - - Sub-Tended Ring/Route (NMFN Build)
- Edge Router
- BVT POP
- DTC POP
- ENMR POP
- La Jicarita POP
- Leaso POP
- PVT POP
- RCRTC POP
- SWC POP
- TBTC POP
- VTC POP
- WNMT POP

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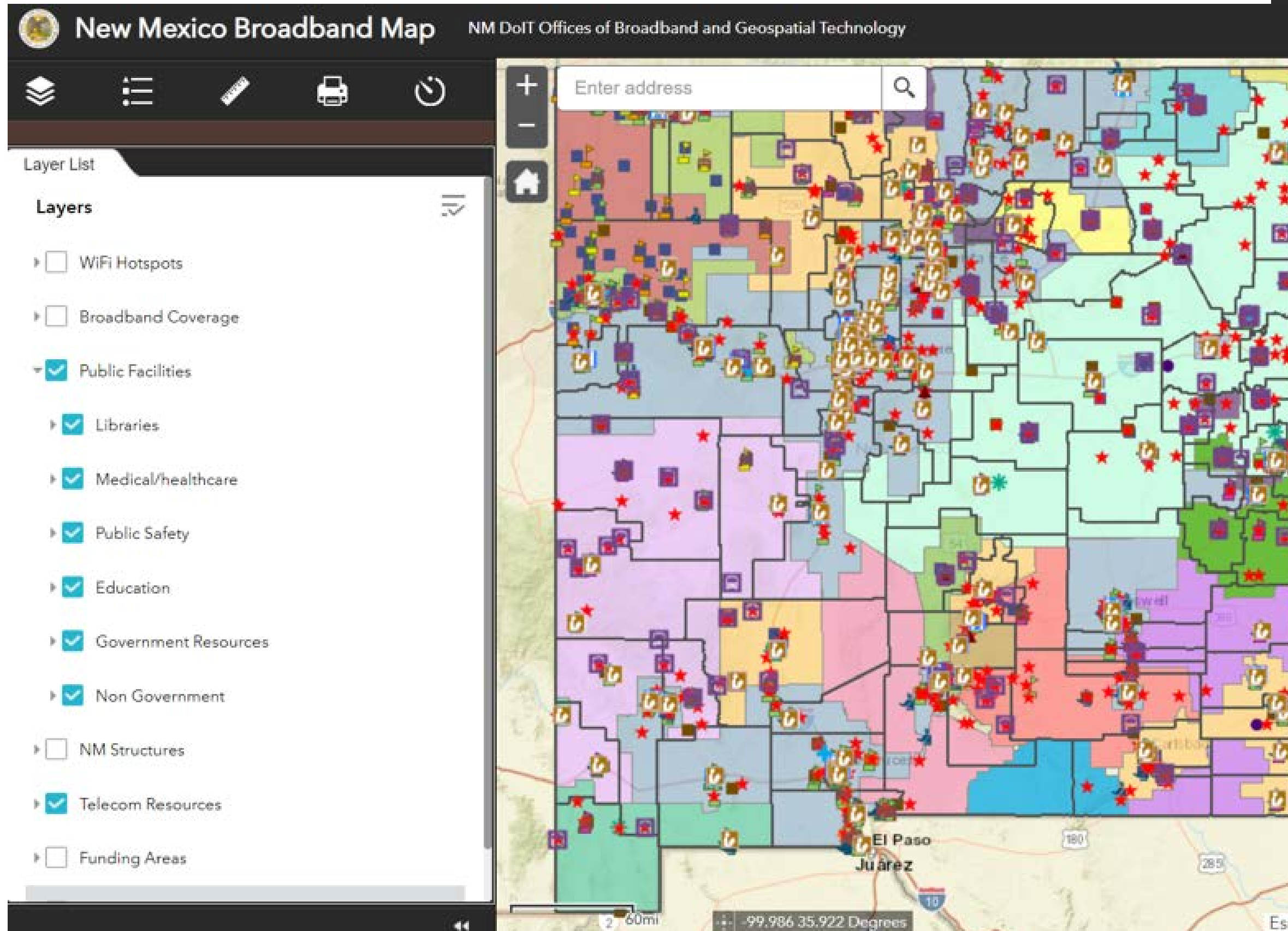


ANCHOR INSTITUTIONS

<u>Provider Name</u>	<u>Anchors</u>
Baca Valley Telephone Company, Inc	66
Dell Telephone Cooperative	TBD
ENMR Telephone Cooperative	598
La Jicarita Rural Telephone Cooperative, Inc	19
Leaco Rural Telephone Coperative, Inc	131
Penasco Valley Telephone Cooperative	202
Roosevelt County Rural Telephone Cooperative, Inc	52
Sacred Wind Communications, Inc	TBD
Tularosa Communications, Inc	214
Valley Telephone Cooperative, Inc	TBD
Western New Mexico Telephone Company, Inc	262
Total	1544



PUBLIC FACILITIES BY BOUNDARY



- Baca Valley Telephone Company
- Century Tel, Inc.
- DOD
- Dell Telephone Cooperative
- ENMR Plateau Telecommunications
- La Jicarita Rural Telephone Co-op
- Leaco Rural Telephone Co-op
- Mescalero Apache Telecom
- Navajo Communications Company/ Frontier
- Panhandle Telephone Co-op
- Penasco Valley Telephone Co-op
- Roosevelt County Rural Telephone Co-op
- Sacred Wind Communications
- Tularosa Basin Telephone Co-op
- Unknown
- Valley TeleCom Group
- Western New Mexico Telephone Co-op
- Windstream Communications

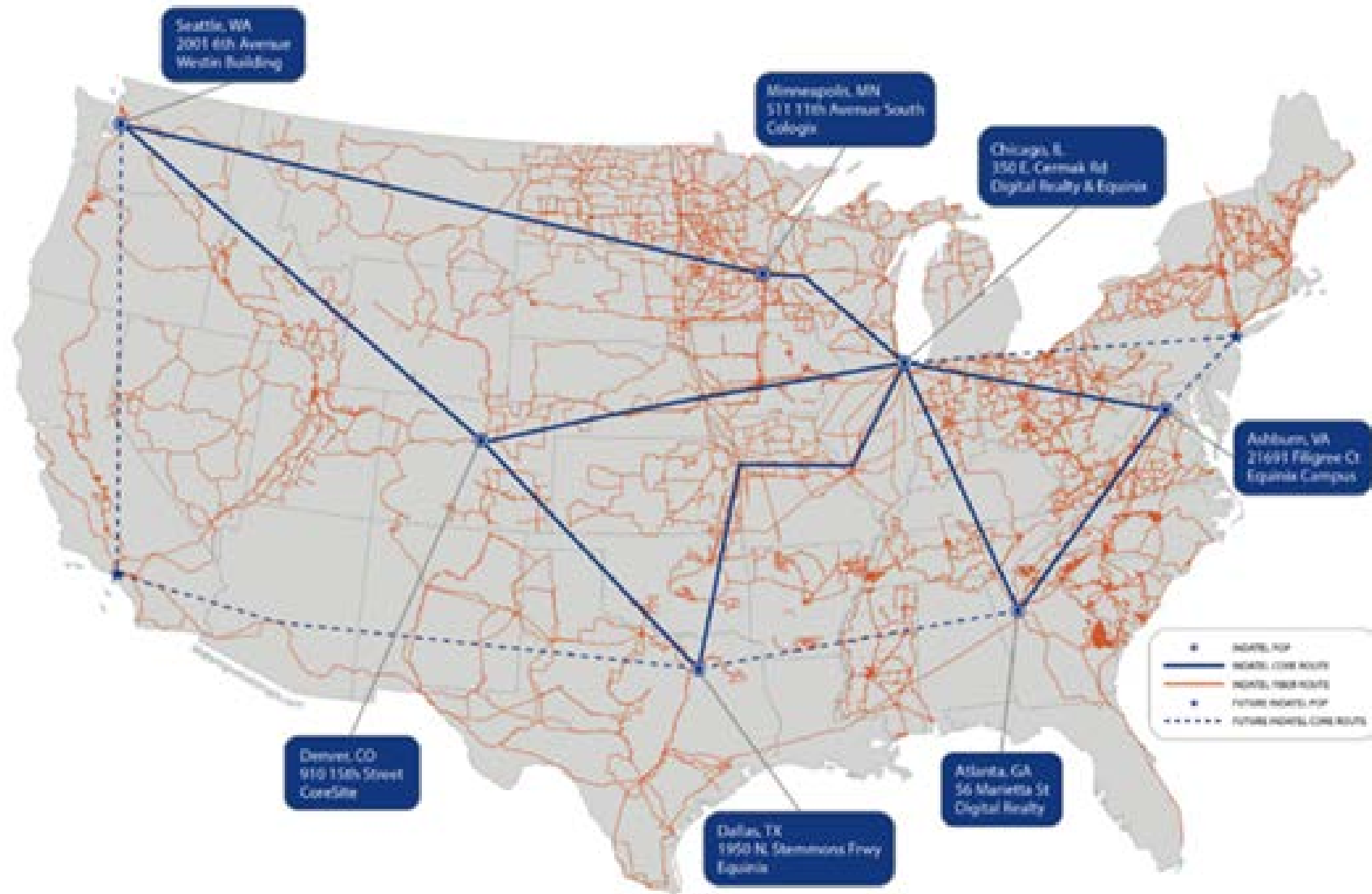
New Mexico Broadband Map -
<https://nmbbmapping.org/mapping/>

NATIONWIDE ACCESS

NM Fiber Network is an Indatel partner. This partnership gives us access to a nationwide network, delivering more opportunity for economic development in our state.

NM Fiber Network can provide wholesale ethernet solutions with one MSA, one NOC, and seamless efforts across 37 states through aggregation of more than 700 independent telcos and electrical cooperatives.

In joining force with a national broadband carrier it will allow NM Fiber Network to connect New Mexico business owners with their corporate offices directly through a safe and secure ethernet connection- wherever that may be. This will allow NM Fiber Network, through partnership with INDATEL to respond to RFP's that have multi-location businesses.



- Indatel is a nationwide network with connections to 700+ rural independent telecommunications providers across the Nation.

SERVICES OFFERED

Lit Services:

- IP Transit (Dedicated Internet Access)
- Peering/Access to Internet Exchange
- Ethernet-based services – capacity between locations
- Wavelength services – capacity between nodes on the middle mile network
- Data Center Interconnectivity

All services are backed with dedicated speeds and uptimes also known as a service level agreement or SLA.



FUTURE FORWARD TELECOMMUNICATIONS

NM Fiber Network understands that this is everyone's opportunity to meet the current and future needs of our public networks. Our networks area lifeline that will deliver future forward backhaul and scalable design to meet the needs of stakeholders.



- Bury fiber as much as possible to avoid environmental impacts
- Pass-through transport sites splicing to minimize fiber loss
- Limited distance between active optical sites
- Maximized OSNR through amplified optical signal
- Testing points for troubleshooting
- Flex grid filters for future high-capacity channels
- Built-in rings for redundancy
- Standardized inventory selections to avoid supply-related issues



COLLABORATION

Public/Private partnerships can bring scalable solutions to all New Mexicans.

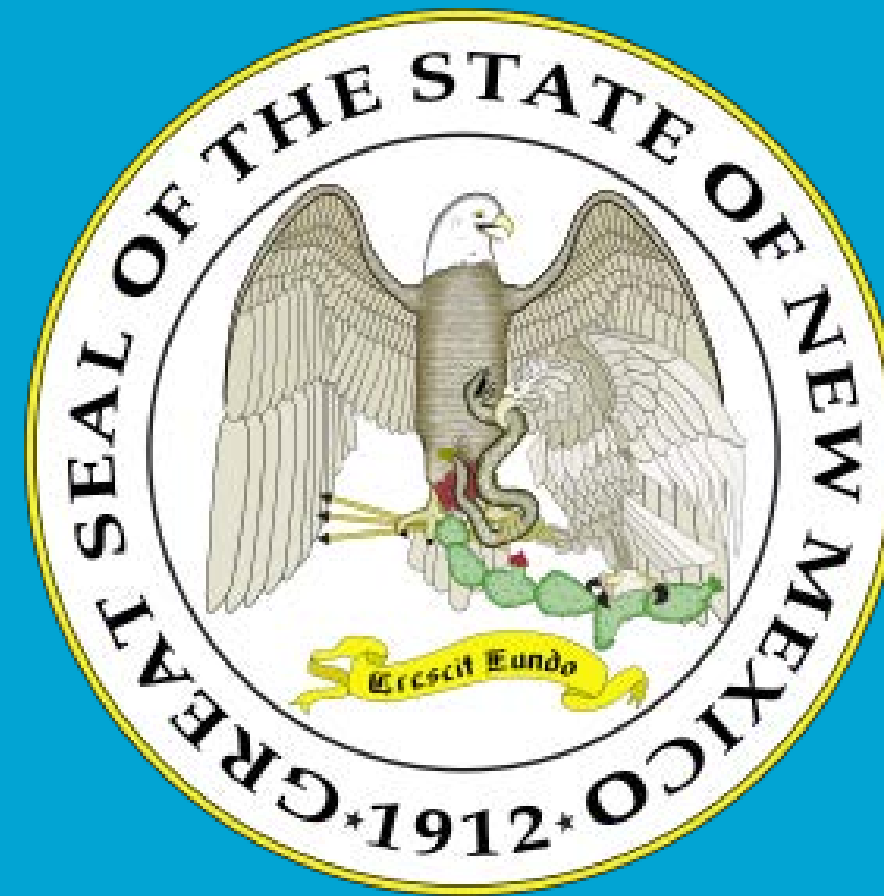
Middle Mile Operator

NM Fiber Network will leverage existing infrastructure to bring competitive pricing and improved reliability and redundancy to anchor institutions. NM Fiber Network will minimize new routes and construction needed to deliver access to anchor institutions.

State Government

NM Fiber Network will utilize funding opportunities to support the construction of middle-mile and promote the use of the network. It will work with municipalities, counties, and state agencies to promote universal service access in all areas of New Mexico.

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OUR MIDDLE MILE BENEFITS

- Open-Access Middle-Mile: provides access to high-capacity, price competitive middle-mile access.
- Middle Mile network provides a “on ramp” to the public Internet for last mile providers.
- Improve economics of last-mile network deployment in rural New Mexico.
- Allow last-mile providers to focus on their core mission.
- Avoids duplication and geographic overlap with planned middle-mile network.
- Directly connect Community Institutions.
- Provide new broadband connections between key locations in New Mexico.
- Increase redundancy and resiliency of existing and planned broadband connections
- Enable low latency, direct connectivity between key interconnection points in neighboring states (I.E. Texas Lone Star and INDATEL)





PUBLIC/PRIVATE PARTNERSHIPS

NM Fiber Network looked into building a statewide network as a result of the NM Broadband Initiative Consortium contacting us to look into what it would take to build a network that would create stability, redundancy, speeds to unserved and underserved areas where last mile providers could work with one entity to get the bandwidth needed. The state of New Mexico needs a network that would be viable and scalable into the future; that was our goal and that is what we have designed.

NM Fiber Network members have over 12,000 miles of fiber in service today, so with a few routes that yet need to be placed to close loop holes and an upgrade in electronics we will be able to make this one of the most robust networks in the nation while providing network integrity and maintenance across a large state with geographic challenges.

NM Fiber Network went into this venture anticipating collaboration with the State of New Mexico. We continue to work with Director, Kelly Schlegel, and her team at the Office of Broadband Access and Expansion to collaborate to build this vast network and deploy speeds and services that every New Mexican needs in today's technological driven society.

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