



CONNECT
new mexico

Office of Broadband Access & Expansion

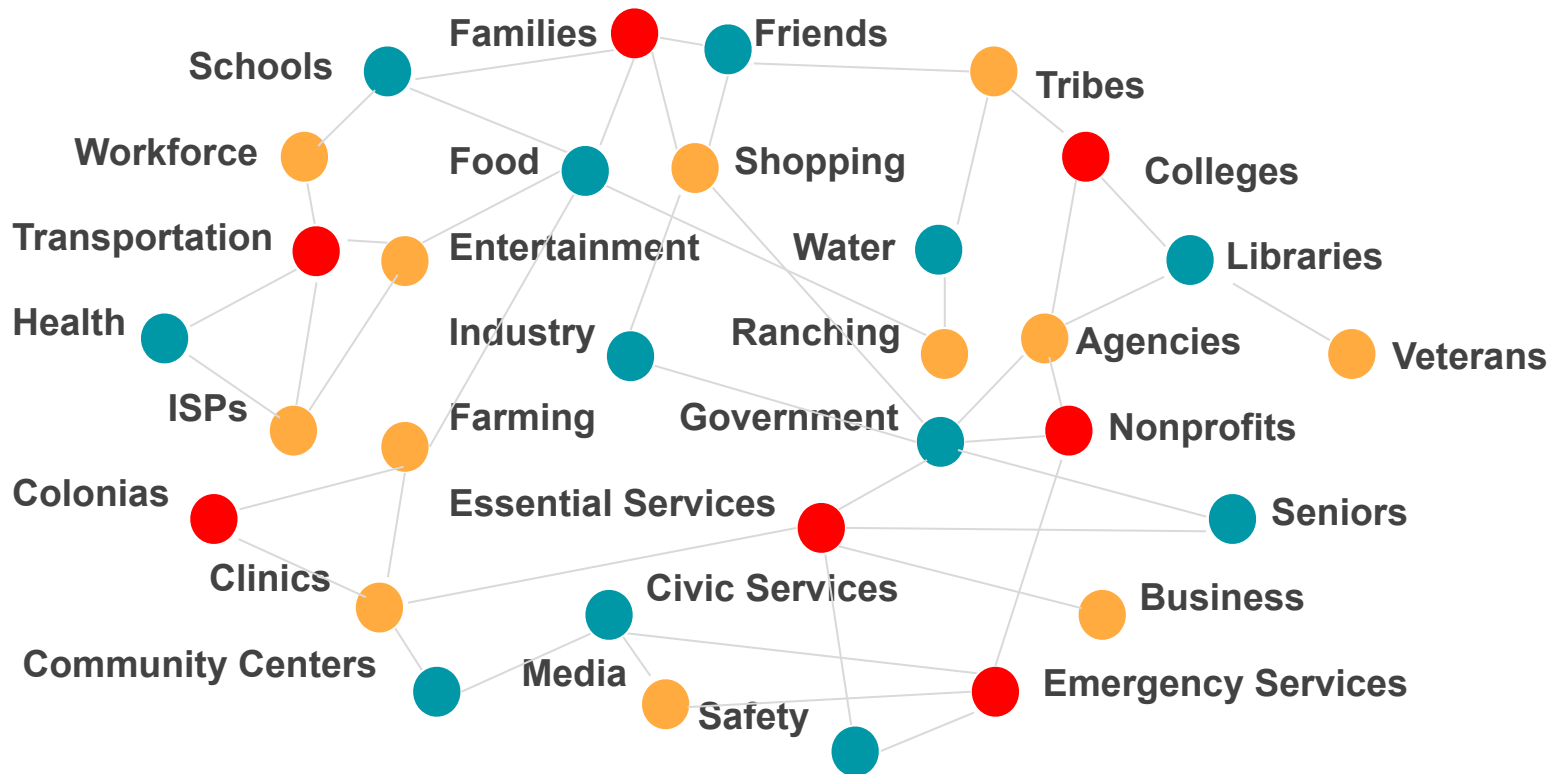
Connecting the Dots - Broadband is Everybody's Business

Kelly Schlegel, Director
New Mexico Office of Broadband Access & Expansion (OBAE)

MAY 24, 2023



Connecting the Dots - Broadband is Everybody's Business



What is Broadband? A Tool for Connecting



- **Broadband** is a tool for **connecting people**.
- Broadband refers to **high-speed internet access**.
- Broadband includes several high-speed technologies such as fiber, cable modem, wireless, and DSL.
- Broadband uses a transmission technique of 1s and 0s.

```
01000010 01110010 01101111 01100001 01100100
01100010 01100001 01101110 01100100 00100000
01101001 01110011 00100000 01100001 00100000
01110100 01110010 01100001 01101110 01110011
01101101 01101001 01110011 01110011 01101001
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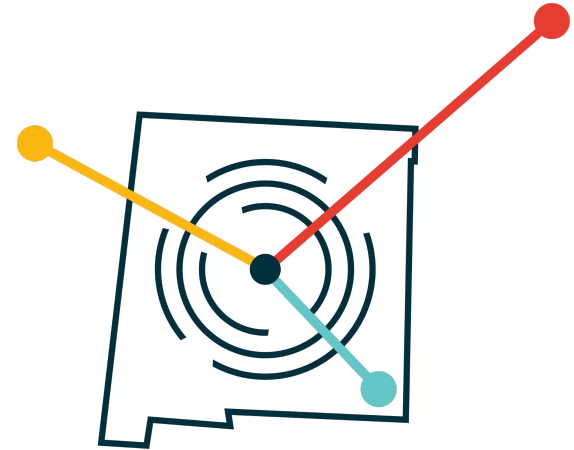
1 Mbps = One Million Zeros and Ones Sent/Received every second.

What is the Internet, really?

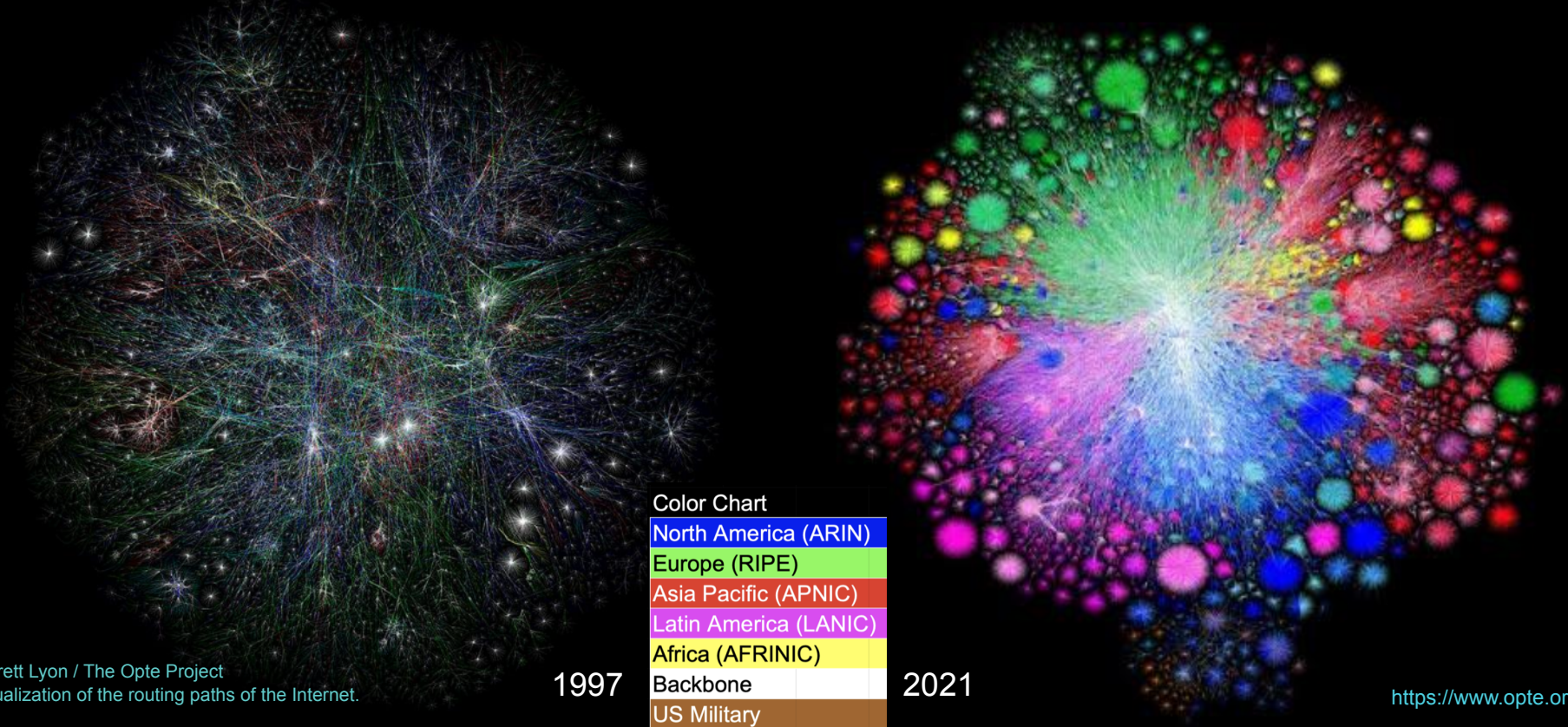


● The internet is a **network of networks** that we use to:

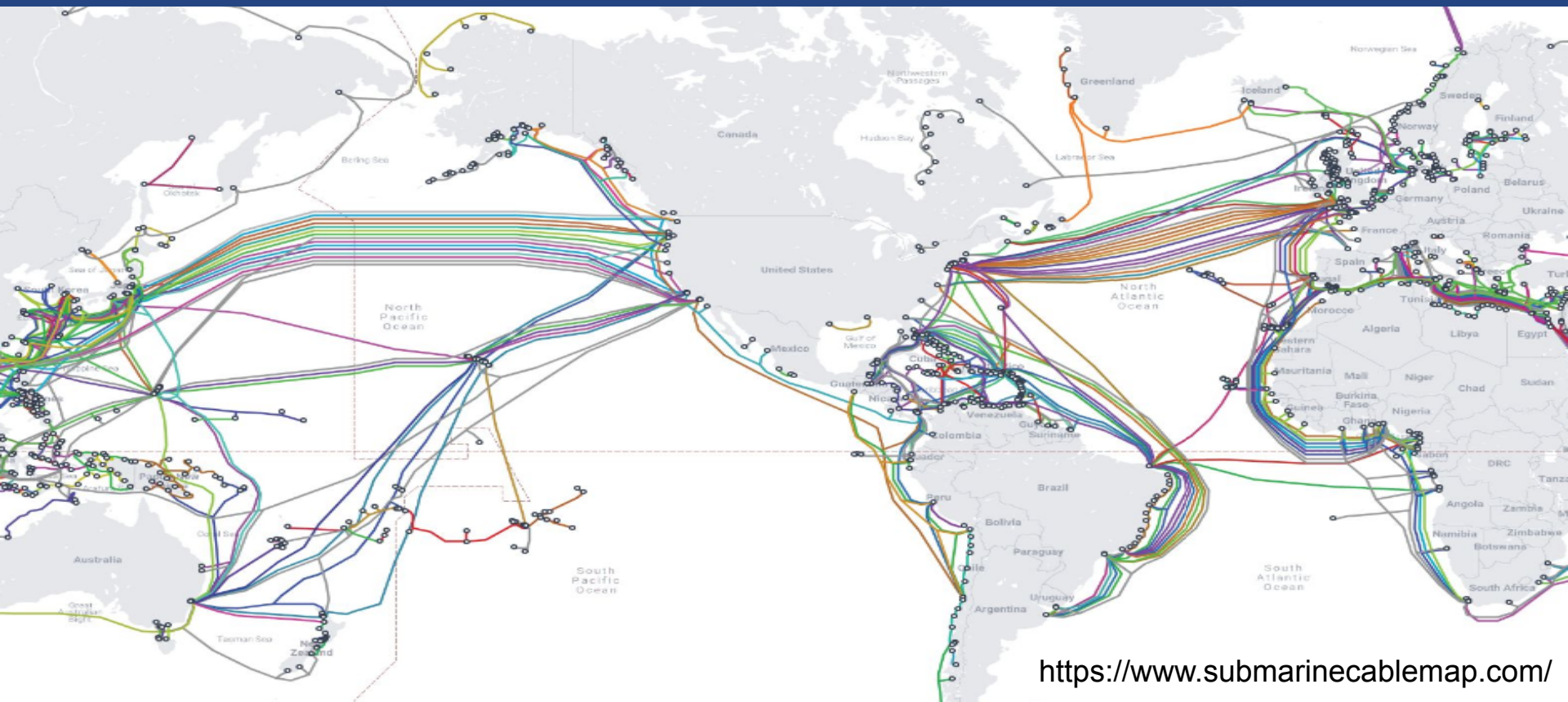
- communicate
- learn
- work
- do business
- access critical services
- heal
- connect....



The Internet - A network of networks (1997-2021)

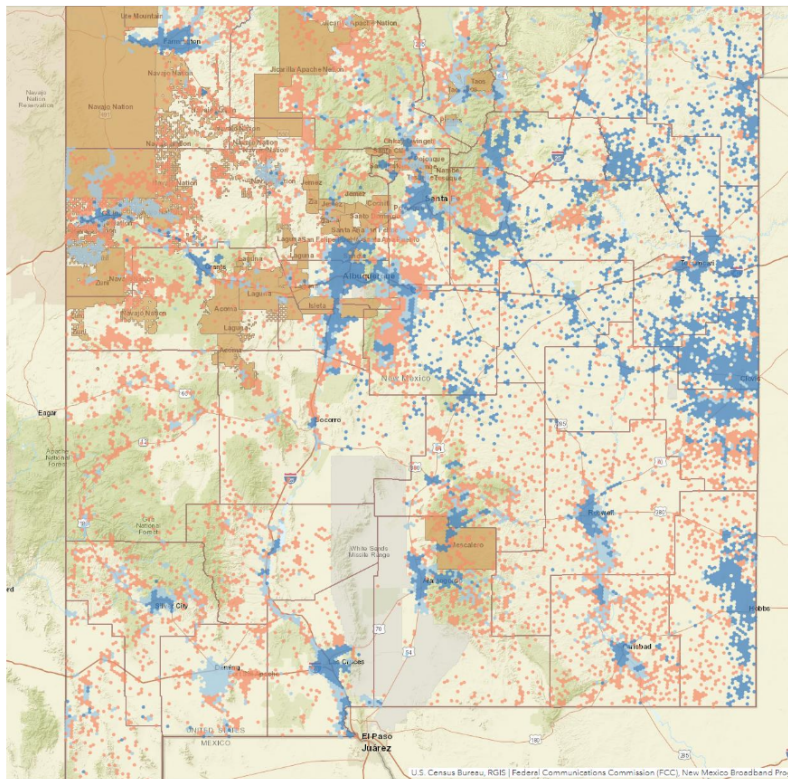


The Internet - Undersea Cables



The Internet - U.S. Long-Haul Fiber





Broadband Coverage (FCC as of June 2022)



Unserved



Underserved



Served

Administrative Boundaries



County Boundary



Tribal Land Boundary



State

- **DoIT** - Department of Information Technology
- **OBAE** - Office of Broadband Access and Expansion
- **CNMC** - Connect New Mexico Council and five Working Groups

- **ARPA** (American Rescue Plan Act) Department of the Treasury
- **NTIA** - National Telecommunications and Information Administration

- **FCC** - Federal Communications Commission
- **USDA** - United States Department of Agriculture
- **PLUS** other National, State, and Local Agencies and Organizations



Federal



- Mission:** Passionate leadership
to drive bold, equitable, and inclusive
broadband solutions.
- Vision:** Achieve bold, affordable broadband solutions
for New Mexicans
that honor the state's rich heritage
and elevate quality of life for all.
- Values:** 1) bold 2) honest 3) curious 4) innovative
5) respectful 6) collaborative 7) analytically rigorous



- **Office of Broadband Access & Expansion**
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Annamia Mourning, Executive Assistant
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Erin Thompson, Communications
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Natalie Runyan, Geospatial Information Officer
Monica Riehl, Project Manager
Jose Betancourt, Project Manager
Richard Govea, Project Manager
[and growing....](#)
- CTC technology & energy team

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- **Broadband Support Team**
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Jennifer Nevarez & CLN, Support Team
John Osmon, Project Manager
Justine Fox Young, Counsel
Kim Kruzel, OBAE Advisor
Sandeep Taxali, Program Advisor
Stephine Poston, Tribal Broadband Support



- **3-Year Strategic Plan** - submitted January 1, 2023
includes the strategic priorities, initiatives and actions to accomplish each goal.
- **Four Major Goals:**
 - 1. Universal Broadband Availability**
 - 2. Broadband Adoption and Meaningful Usage**
 - 3. Statewide Next Generation Networks**
 - 4. Program Stewardship**



- Stakeholder Engagement & Local Capacity Building**
 - Participate in events, workshops, and webinars.
 - Complete one or more online surveys.
- Technical Assistance** - Contact OBAE to discuss needs.
 - Asset identification, project development, coalition building, mapping and data sharing and analysis, rights of way, grant writing, network design, and more.
- Connect New Mexico Council Meetings & Working Groups**
 - Attend monthly Council meetings.
 - Join working group meetings.



● ROW poses many challenges:

- Rights of Way (ROW), Easements, Permits and Pole Attachments and Engineering /Environmental Surveys can add 1-2 years to a Broadband Project.
- Some current New Mexico Broadband projects can have over 1000 permits needed.
- Navajo Nation requires 50% +1 descendant to approve if Broadband goes across their lands.
- One Broadband project in Socorro to connect schools was cancelled because the pole attachment “make-ready” costs grew too large.
- Current Santa Fe Indian School Project has 48 permits needed and is in the FAST-permitting council dashboard.
- Broadband Office in Utah partnered with Utah DOT to streamline the process.
- **We need everyone’s cooperation and ideas to streamline the permitting process.**

Broadband Infrastructure - Agency Support



Program	Source	When	Eligible	Speed	Awardees	Rules
Connect New Mexico Pilot Grant	State	Ongoing - next round Summer 2023	80% <25/3 & <100/20 Mbps	>100/20(100/100)	Awardees	Rules
ARPA Funding	State /County	Now	<100/20 Mbps	>100/20(100/100)	Awardees	Rules
NTIA TBCP Tribal Broadband Connectivity Program	Federal	Ongoing - next round Summer	n/a	n/a	Awardees	Rules
NTIA BEAD Broadband Equity, Access, & Deployment Program	Federal//State	Planning now - for 2024	<25/3 & <100/20 Mbps	>100/20 Mbps	n/a	Rules
FCC RDOF Rural Digital Opportunity Fund	Federal	Now	<25/3 Mbps	>25/3Mbps	Awardees	Rules
USDA ReConnect Program	Federal	Now	<100/20 Mbps	>100/100 Mbps	Awardees	Rules

PLUS other National, State & Local Agencies & Organizations. List of funding awards online: <https://connect.nm.gov/funding-awards>

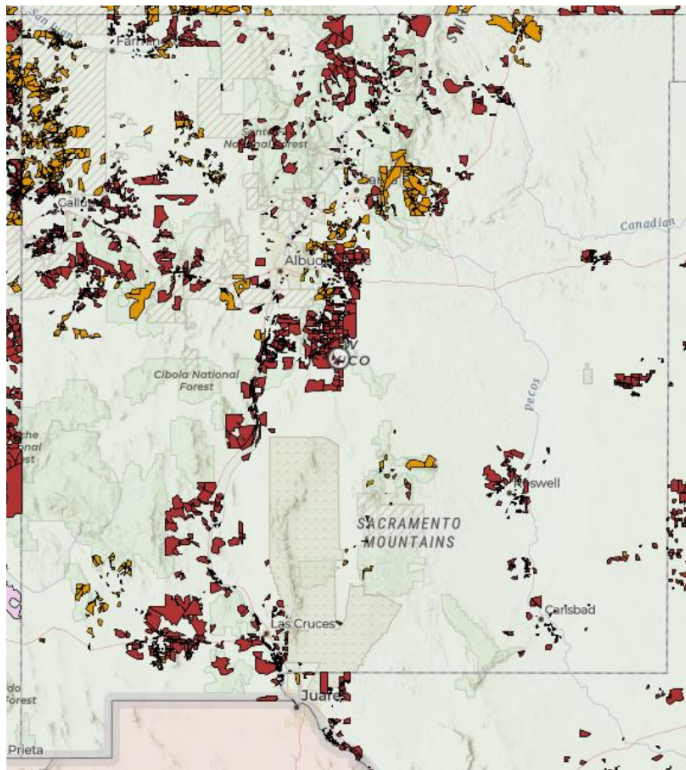


2023 Highlights Broadband Funding Opportunities



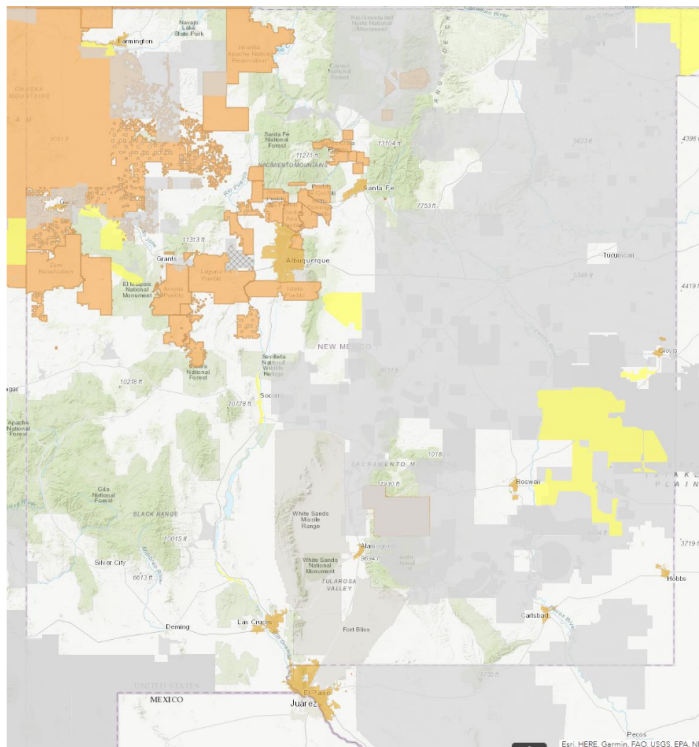
Funding Opportunity Highlights for 2023	Source	Application Opens	Application Due	Anticipated Award Dates	Rules
Connect New Mexico Pilot Grant	State	Next Round- Summer 2023	Late Summer- Early Fall 2023	Late 2023- Winter 2024	Rules
Treasury Capital Project Funds Administered by State	Federal /State	Feb-Mar 2023	June-Aug 2023	Oct-Dec 2023	Rules
NTIA BEAD Administered by State	Federal /State	Early-Mid 2024	Mid 2024	Late 2024- Mid 2025	Rules
NTIA TBCP Tribal Broadband Connectivity Program	Federal	+ Summer 2023	n/a	n/a	Rules
USDA Community Connect Grant Program	Federal	Open	June 20 2023	n/a	Rules
USDA Broadband Technical Assistance Program	Federal	Apr 19 2023	June 20 2023	n/a	Rules
USDA RUS (Rural Utilities Services) ReConnect FOA 5	Federal	June 2023	Sep 2023	Mar 2024	Rules
DOE Smart Grid Grants to Coops, Local Governments, Tribes	Federal	Jul/Aug 2023 CP	Sep 2023	May-Jun 2024	Rules

RDOF Auction Wins



RDOF Map Link:

<https://experience.arcgis.com/experience/0b324cabf7b94d9ca34caa9361122d94/>



USDA ReConnect Map Link:
[https://
ruraldevelopment.maps.arcgis.com/
apps/webappviewer/index.html?
id=27bdf3ffca5e462c92bde6285d4
358c0](https://ruraldevelopment.maps.arcgis.com/apps/webappviewer/index.html?id=27bdf3ffca5e462c92bde6285d4358c0)



● **Affordable Connectivity Program (ACP) - \$14.2B**

Formerly Emergency Broadband Benefit

Federal subsidy for lower-income Americans, providing:

- \$30/month for internet (\$75 for tribal)
- Up to \$100 to purchase device

Over 1000 Internet Service Providers participating.

Qualifying subscriber criteria includes those involved in lifeline, school lunch (other financial tests available).

Service providers must get the word out to identify, inform & track eligible subscribers

<https://www.fcc.gov/acp>



● **Emergency Connectivity Fund (ECF) - \$7.2B**

Funds schools and libraries

Recent estimates suggest there may be as many as 17 million children struggling without the broadband access they need for remote learning.

Eligible expenditures include PCs, tablets, WiFi hotspots, broadband connectivity for students, staff and library uses.

<https://docs.fcc.gov/public/attachments/FCC-21-58A1.pdf>



FCC E-Rate Program makes telecommunications and information services more affordable for schools and libraries.



With funding from the Universal Service Fund, E-Rate provides discounts for telecommunications, internet access, and internal connections to eligible schools and libraries. fcc.gov/general/universal-service-fund



Discounts range from 20 to 90 percent and are based on the poverty level of the schools. Rural schools and libraries may also receive a higher discount. Recipients must pay some portion of the service costs.



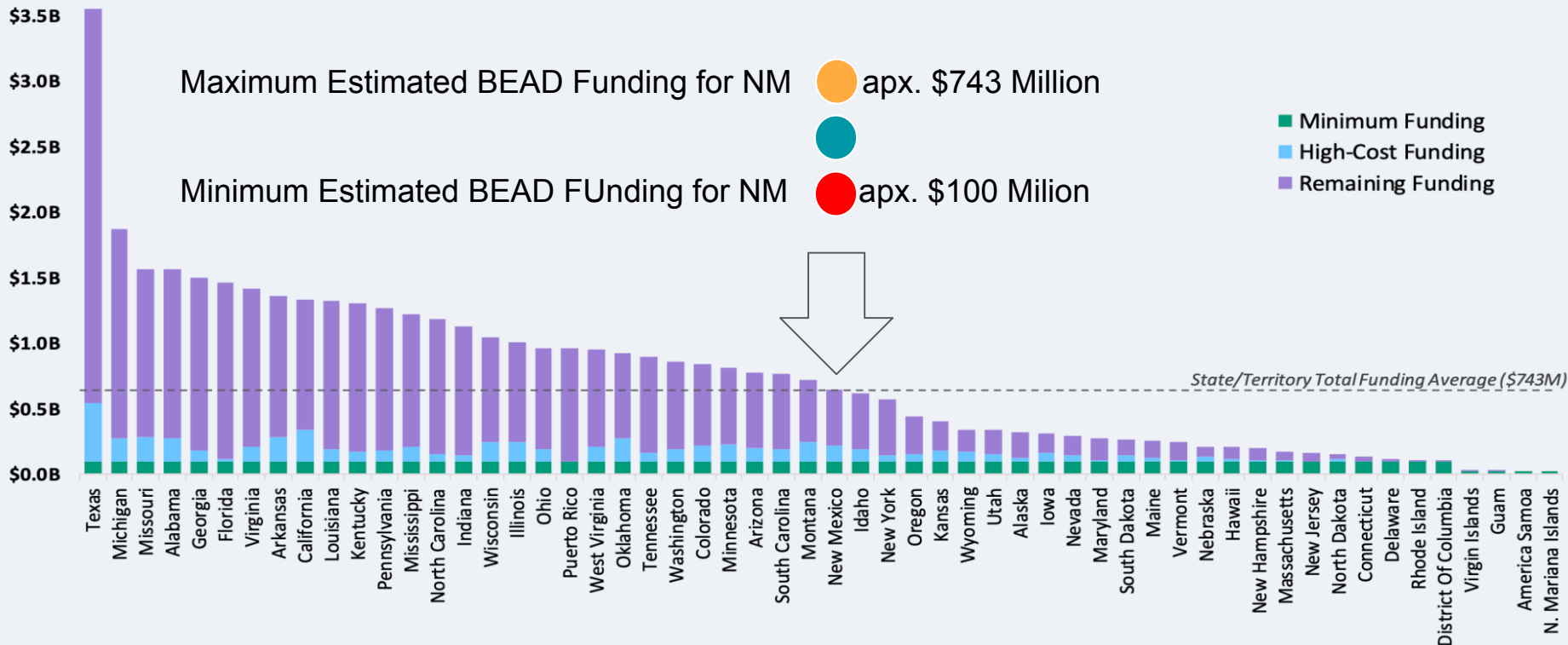
usac.org/e-rate/applicant-process/before-you-begin/eligible-services-list/



- **NTIA BEAD program** = \$42.5 billion in funding to all 50 states and six territories.
- **FCC provided a new Broadband Map** of eligible funding locations, including
 - UNserved: under 25/3 Mbps**
 - UNDERserved: under 100/20 Mbps**
- **Correct mapping** of eligible locations is critical and will affect funding. Any FCC mis-assessment of the number of unserved locations will **directly impact** state's funding allocation. Expect a lot of challenges. BEAD excludes previously funded and includes all satellite and unlicensed wireless locations.
- **Preference** will be given to non-traditional ISPs (electric coops, munis, tribal, etc.).
- **Fiber-To-The-Home (FTTH)** projects take priority in funding decisions.
- **Awardees** must complete FCC performance testing and participate in Affordability Connectivity Program (ACP).

NTIA BEAD Program - Potential Allocations

“Total Estimated BEAD Funding by State/Territory”



Source : Cartesian, FCC National Broadband Map (June 2022 data, released in November 2022; Data will change as a result of the fabric, availability challenge process, & new builds.

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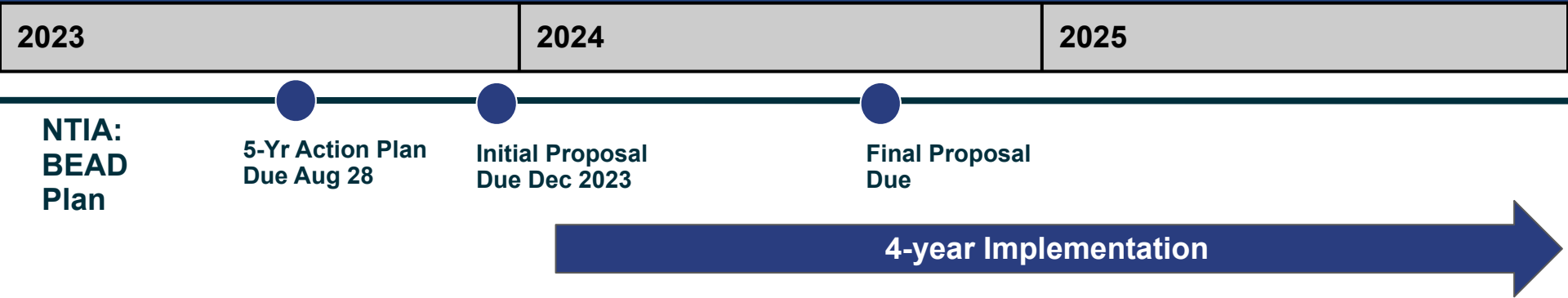


- Prioritize applications that commit to advancing **equitable workforce and quality jobs.**
- **New Mexico could need an estimated 1,400-4,000 Broadband workers** of various skill levels (certificates to degrees) to build, maintain and operate Broadband networks in the state.
- **States can leverage the resources and expertise of local institutions and national groups to develop and maintain a trained workforce, including:**
 - **State workforce development agencies** which are tasked with overseeing their state's workforce development strategy and comprise industry leaders, higher education institutions, labor organizations, and other priority partners throughout the state.



- **Community college systems**, which have direct experience creating job-specific training programs.
 - Santa Fe Community College recently provided hands-on Fiber Optic certification training for more than 80 broadband student.
- **ISPs, nonprofits, and industry groups**, that can provide insight into needed skill sets, inform program development, and support job placement.
 - Sacred Wind has requisitions where they will give candidates on the job training
 - Jemez Pueblo trained their own citizens to run the JNet network on their lands
- **Smaller rural providers and local cooperatives** may have existing partnerships with their local community colleges or other groups for regional training programs that can be further leveraged by the state.

NTIA BEAD Timeline





-  **The U.S. Digital Equity Act** provides **\$2.75 billion** to establish three grant programs that promote digital equity and inclusion.
-  The Digital Equity Program grants aim to ensure that all people and communities have the skills, technology, and capacity needed to reap the full benefits of our digital economy.
[English](#) | [Español](#)
-  State Digital Equity Planning Grant Program (2022)
Digital Equity Capacity Building Grant Program (2023-2024)
Digital Equity Competitive Grant Program (2024-2029)



WHAT IS “DIGITAL OPPORTUNITY AND EQUITY”?

Generally, experts have identified five elements of digital opportunity and equity:



Broadband Access:

Affordable, accessible, and reliable high-speed home internet service is available for all individuals



Accessible and Inclusive Content:

Public online content is inclusive and accessible by all individuals



Devices and Tech Support:

Individuals have access to computers or tablets and technical support



Privacy and Security:

Individuals can protect their data privacy and online security



Digital Literacy and Skills:

Individuals have digital skills to support their ability to meaningfully use the internet in their daily lives



Covered Population

- Low-income households
- Aging populations
- Incarcerated individuals
- Veterans
- People with disabilities
- People with language barriers
- Racial and ethnic minorities
- Rural inhabitants

Barriers to Adoption

- Access
- Affordability
- Adequate devices
- Cost of adequate devices
- Access IT support
- Afford IT support
- Access online services
- Inclusiveness of online services access
- Other barriers



- To achieve Digital Equity, New Mexico is creating a **Digital Equity Plan**.
- The plan will develop and implement the **Digital Inclusion actions** needed across the state to make Digital Equity for all New Mexicans a reality.
- To learn more and get involved visit: <https://connect.nm.gov/digital-equity-plan>



-  **SECTION I: INTRODUCTION & VISION FOR DIGITAL EQUITY**
-  **SECTION II: COLLABORATION & STAKEHOLDER ENGAGEMENT**
-  **SECTION III: BARRIERS & ASSETS**
-  **SECTION IV: DEFINING OBJECTIVES & ASSESSING IMPACT**
-  **SECTION V: IMPLEMENTATION**



- New Mexico Broadband Day - February 15, 2023
- 6 Regional Meetings
- 13 Listening Sessions
- 1 Network Operators Conference
- 1 Tribal Convening and 2 Tribal Mapping Sessions
- 5 Working Groups
- 1 Industry Focus Group

PLUS Interviews, Focus Groups, Meetings, Surveys, and more...



Listening Sessions <https://connect.nm.gov/listening-sessions>



- **Friday, May 26** - 12:30 – 1:30 pm Digital Equity Organizations/Covered Populations
- **Tuesday, May 30** - 12:00 – 1:00 pm Workforce Development
- **Wednesday, May 31** - 12:00 – 1:00 pm Workforce Development
- **Wednesday, May 31** - 1:30 – 2:30 pm Local and Regional Governments
- **Monday, June 5** - 12:00 – 1:00 pm Internet Service Providers
- **Thursday, June 8** - 12:00 – 1:00 pm Internet Service Providers
- **Friday, June 9** - 12:00 – 1:00 pm Tribal Governments and Agencies
- **Monday, June 12** - 12:00 – 1:00 pm Business and Economic Development
- **Wednesday, June 14** - 12:00 – 1:00 pm Business and Economic Development



- **Southern Bootcamp - Wednesday, June 28, 2023**
In Las Cruces area
- **Northern Bootcamp - Thursday, June 29, 2023**
In Albuquerque area
- Each one-day broadband bootcamp is designed to help local governments, elected officials, nonprofits, agencies, foundations, and community stakeholders orient themselves and develop a better understanding of the broadband landscape in order to support collective development of effective solutions.



State & Local Government Asset Inventory

Infrastructure-related assets that may help facilitate or reduce the cost of broadband deployment in the state



Community Anchor Connectivity

Barriers and obstacles to clients, facility access, criticality of internet to mission and program capacity



ISP Workforce Preparedness

Sources for hiring, workforce programs, ACP, internet skills and adoption, collaboration in community, deployment approaches, disaster recovery plans



Workforce Programs Inventory

Workforce programs profile, barriers to developing diverse & skilled workforce, ISP workforce-related questions



Digital Equity Program Inventory

Program details, planned program types & areas of focus, broadband impacts on programmatic outcomes

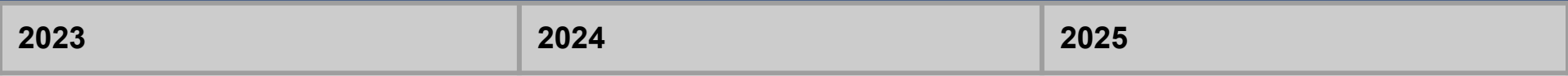


Barriers & Obstacles for Covered Populations

Internet, computer & content access, digital skills, data security, barriers & obstacles, broadband impacts on programmatic outcomes



NTIA Digital Equity Program Timeline



**NTIA:
Digital
Equity**



**Plan Draft
Due
September**



**Plan
Due Dec 1**



**Plan Report
Due Dec 1**





- **Connect with OBAE**
- Complete one or more online **Surveys** <https://connect.nm.us/tell-us>
- Attend a **Listening Session** <https://connect.nm.gov/listening-sessions>
- Register for a **Bootcamp** <https://connect.nm.gov/lets-get-going-bootcamps>
- Tune in to a **Lunch and Learn Webinar** <https://connect.nm.gov/lunch-and-learn>
- Participate in the **Map Challenge** <https://connect.nm.gov/map-challenge>
- Join the **OBAE Mailing List** <https://connect.nm.gov/mailing-list>
- Follow OBAE on **Facebook** <https://www.facebook.com/people/New-Mexico-Office-of-Broadband-Access-Expansion/100090434731302/>
- Connect with OBAE on **LinkedIn** www.linkedin.com/company/new-mexico-office-of-broadband-access-and-expansion

What Can I Do Now? Connect with CNMC

Connect New Mexico Council & Working Groups



- Attend monthly **Connect New Mexico Council Meetings** (in-person and/or virtual).
(Third Wednesday every month 2pm-4pm)
- Join one of the **Connect New Mexico Council Working Groups**:
 - Digital Equity & Inclusion (every other Thursday 11am-12noon)
 - Regional Planning & Community Engagement (every other Wednesday 11am-12noon)
 - Tribal Working Group (every other Wednesday 12noon-1pm)
 - Permits, ROW, & Pole Attachments PROP (every other Tuesday 10am-11am)
 - Mapping, Data & Evaluation - (every other Tuesday 1:30pm-2:30pm)

(Meeting schedule subject to change)

<https://connect.nm.gov/connect-new-mexico-council>



Research and Learn

Look for and learn about proposed projects in your area.

Help identify and clarify infrastructure assets/needs and UNServed/UNDERserved areas.

Help identify Digital Equity programs and services in your area.

Develop a Broadband Coalition

Build relationships with local, regional, tribal, and state entities and initiate meetings.

Begin outreach to underrepresented communities and cultivate local champions.

Review the Local Planning guide: <https://connect.nm.gov/local-planning-guide.html>

Support Broadband Efforts in your Area

Encourage community members to take the Map Challenge and sign up for ACP, if eligible.

Encourage community members to participate in meetings, activities, and events.



Kevin Shendo, Pueblo of Jemez
Jemez Pueblo Tribal Network



Community Voices:
Open forum for quick updates from local communities