Bridging Nebraska's Digital Divide

A state-wide event to collectively seek solutions for improved Broadband service

Monday, March 21, 2022
9:00 AM – 3:00 PM C.S.T.

Learn from experts and join in regional community conversations

Broken Bow – Imperial – Kearney – Lincoln
Norfolk – North Platte - O'Neill – Ogallala
Omaha – Ord – Scottsbluff – South Sioux City – Valentine

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Visit the website for today's recorded webinars for future reference.

EDA U.S. ECONOMIC DEVELOPMENT ADMINISTRATION
Program funded in-part through EDA CARES Act grant

NROC Nebraska Regional Officials Council

Nebraska Public Power District

Bridging Nebraska's Digital Divide

Broadband Event Agenda – March 21, 2022

8:55AM Welcome – *from your NROC host*

9:00AM Welcome [Live stream begins]

- Dan Watermeier, Chair, Nebraska Public Service Commission

9:15AM Money Is Coming…

- Oliver Borchers-Williams & Michael Dwiggins, Broadband Action Team Coordinators/Americorps Fellows, SENDD

Take Away #1: I need to get ready! Willingness to convene/partner.

9:30-10:30AM Broadband – Why Does It Matter?

- **Precision Farming –** Brian Cox, Engagement Zone Coordinator- Nebraska Extension; Julie Bushell, President, Paige Wireless

-**Telehealth –** Dr. Thomas Magnuson, UNMC Geriatric Psychiatry

- **Education –** Mike Steele, Vice President of Administrative Services, MPCC

- **Economic Development –** Brian Adams, Chief of Staff, OPPD

Take Away #2: My constituents need and deserve quality broadband; Need to convene, gain knowledge around specific needs, regional needs.

10:30- 10:45AM Break

10:45-12:00PM How It's Done: Public-Private Partnerships

Why rural Nebraska needs broadband and how public-private partnerships can bring better broadband to your community.

- **Valentine's Story –** Kyle Arganbright, Mayor & Sandhills State Bank, Exec VP

- **Gothenburg's Story –** Nate Wyatt, Certified Financial Planner; and Tom Shoemaker, President, Pinpoint Communications

- **NPPD –** Pat Pope, Chairman at Large, Public Power Council; and David Webb, Special Assistant Technology Integration, NPPD

Take Away #3: Steps to foster/assist with public-private entities be successful with funding applications.

12:00- 12:45PM Lunch [provided on site to pre-registered participants]

12:45-2:00PM Digital Inclusion & Needs Assessment, Broadband Mapping & the Toolboxes Available

Understanding current broadband mapping data, efforts to improve broadband mapping and speed tests, and Digital Needs Assessment tools. Current Legislation status on recognizing other Broadband data sources and transparency in PSC applications.

- Brent Comstock, Founder/Owner, BCOM Solutions
- Anna Read, Senior Officer, Broadband Access Initiative, The Pew Charitable Trusts
- Andy Pollock, Lobbyist/Lawyer, Rembolt Ludtke
- Oliver Borchers-Williams & Michael Dwiggins, Broadband Action Team Coordinators - Americorp Fellows, SENDD

Take Away #4: A) Understanding current broadband mapping data, efforts to improve broadband mapping, and speed tests; B) Toolboxes/ others with DNA tools [looking into cost, accessibility, applicability].

2:00-3:00PM Now Let's Talk – What Can We Do To Get Started

Roundtables – Addressing Questions, How & Who Starts a Digital Needs Assessment, Funding Sources list.

This final Roundtable session is only available to in-person event participants.

Please contact your local Economic Development District (EDD) **with follow-up questions and next steps!**

Today's webinar sessions will be recorded and posted to nrocne.com for future reference.

Visit nrocne.com to find your local EDD.

Speaker Bios & Contact Information – *in event order*

Welcome

Dan Watermeier

dan.watermeier@nebraska.gov | https://psc.nebraska.gov/

Dan Watermeier was elected to the Nebraska Public Service Commission (PSC) in November 2018 for a six-year term representing District 1, comprised of eight counties in Southeast Nebraska. Prior to joining the Commission, he served as a state senator in the Nebraska Unicameral from 2012-2018. A farmer by trade, he received a Bachelor of Science degree in Agriculture from the University of Nebraska-Lincoln.

Money is Coming

Oliver Borchers-Williams

oliverbw@sendd.org | www.sendd.org

Oliver Borchers-Williams is the Broadband Action Team Coordinator at the Southeast Nebraska Development District (SENDD), serving as an AmeriCorps Fellow with Lead for Nebraska. Oliver graduated from Miami University, Ohio, with a Bachelor of Arts degree in International Studies and Political Science.

Michael Dwiggins

mdwiggins@sendd.org | www.sendd.org

Michael Dwiggins is the Broadband Action Team Coordinator at the Southeast Nebraska Development District (SENDD), serving as an AmeriCorps Fellow with Lead for Nebraska. He graduated from the University of Nebraska – Lincoln with a Bachelor's of Arts degree in History and Political Science.

Broadband – Why Does It Matter?

Brian Cox

brian.cox@unl.edu | https://extension.unl.edu/

Brian Cox serves as the Engagement Zone Coordinator for Zone 3 with the University of Nebraska Extension. He earned a degree in Animal Science from Colorado State University working positions in animal health and nutrition, then transitioned to IT networking for 23 years. His experience in public and private network support with Hewlett Packard, Buckle, and the University of Nebraska at Kearney, provides a unique pairing of technology networking and agricultural industry experience.

Julie Bushell

jbushell@paigewireless.com | https://www.paigewireless.com/

Julie Bushell is the President of Paige Wireless and Director of Paige Precision Agriculture, designing and implementing connectivity solutions to solve rural America's large connectivity gap while focused on rural economic development. Previously she served as the Director of Sales and Marketing for Paige Precision Ag and is active on multiple technology innovation initiatives including broadband. She received a bachelor's in Political Science and International Studies and Affairs from the University of North Florida.

Dr. Thomas Magnuson

https://www.unmc.edu/psychiatry/about/faculty

Dr. Magnuson specializes in geriatric psychiatry and is board certified in both adult and geriatric psychiatry. He has regularly provided psychiatric services via telehealth for nursing home residents throughout Nebraska since 2004. This service has over 60 sites across Nebraska and Iowa where patients are seen. Dr. Magnuson has developed a web site to provide education and training for long term care workers and administrators: The Long Term Care Mental Health Series. He received his Doctor of Medicine from University of Nebraska Medical Center, completed a Resident and Geriatric Fellowship at Creighton-Nebraska Psychiatry Residency Program.

Mike Steele

steelem@mpcc.edu | http://www.mpcc.edu/about/index.php

Mike Steele serves as the Vice President of Administrative Services for the Mid-Plains Community College (MPCC) overseeing the business office, human resources, information systems, and budget. His previous roles were at MPCC was as the Area Business Officer and a Senior Accountant at RJ Meyer & Associates, LLC in North Platte. He holds a bachelor's in Accounting and Business Management from the University of Nebraska at Kearney, and a Master of Professional Accountancy from the University of Nebraska-Lincoln.

Brian Adams

beadams@oppd.com | https://www.oppd.com/about/leadership

Brian Adams serves as the Chief of Staff at Omaha Public Power District (OPPD), following his role as Programs and Planning Manager in the Financial Service business unit. Previous professional experience includes Deloitte Global focusing on process improvement, process automation, organizational realignment, and project execution; and serving as an international consultant for Booz Allen Hamilton in support of the U.S. Department of Defense. He holds a bachelor's degree in History and Computer Applications from the University of Notre Dame, and a master's degree in Business Administration from the University of Maryland.

How It's Done: Public Private Partnerships

Kyle Arganbright

kyle.arganbright@sandhillsstate.com | https://www.valentinene.gov/city-council

Kyle Arganbright is the Co-founder and Executive Vice President of Sandhills State Bank overseeing the development of the technology, real estate, and marketing functions of the bank. He serves as mayor of Valentine, NE, and is also co-founder of Bolo Beer Co. Kyle graduated from the University of Nebraska – Lincoln and the Colorado Graduate School of Banking.

Nate Wyatt

nwyatt@flatwater.bank | https://flatwater.bank/investments/connect/ourteam

Nate Wyatt is a Certified Financial Planner serving as the Investment Officer, Financial Advisor at the Investment Service Center at Flatwater Bank of Gothenburg. He holds a bachelor's degree in Finance, Business Administration and Management from the University of Nebraska-Lincoln.

Tom Shoemaker

tom@pnpt.com | https://www.pnpt.com/contact

Tom Shoemaker is the President of Pinpoint Communications Inc. His previous roles at Pinpoint included Executive Vice President and Chief Regulatory Officer. Tom serves as a board member on the Cambridge Economic Development and the Nebraska Broadband Task Force. He earned a bachelor's degree in Business Administration and Management from Ashford University.

Pat Pope

plpope@nppd.com | https://www.nppd.com/about-us

Pat Pope is the former President and CEO of Nebraska Public Power District (NPPD) based in Columbus and currently serves as Chairman at Large Public Power Council. He began his 40-year career at NPPD as an Electrical Engineer holding various positions including Vice President of Energy Delivery, then Vice President & Chief Operating Officer. He earned a bachelor's degree in Electrical Engineering at the University of Nebraska-Lincoln, and a Master of Business Administration from the University of Nebraska at Kearney.

David Webb

dwwebb@nppd.com | https://www.nppd.com/about-us

Dave Webb serves as the Special Assistant Technology Integration at Nebraska Public Power District (NPPD) working to facilitate Rural Broadband Initiatives in Nebraska, following roles as the NPPD Director of Technology Integration and Director of Enterprise Technology and CIO. Previously he worked at OGE Energy Corp as a Senior Technology Strategist. He has a bachelor's degree in Electrical Engineering from the Missouri University of Science and Technology.

Digital Inclusion & Needs Assessment, Broadband Mapping & The Toolboxes Available

Brent Comstock

brent@bcomonline.com | https://bcom.solutions/

Brent Comstock is an entrepreneur and rural advocate from Nebraska. He is the CEO & Founder of BCOM Solutions, the digital communications agency for rural campaigns and organizations. His previous role was as Principal, Chief Operating Officer at Change Ventures. He received a bachelor's degree in Business – Marketing and Religious Studies from the University of North Carolina at Chapel Hill while dual enrolled at Duke University's Robertson Scholars Leadership Program.

Anna Read

aread@pewtrusts.org | https://www.pewtrusts.org/en/about/experts

Anna Read is the Senior Officer, Broadband Access Initiative at The Pew Charitable Trusts. Her previous roles include Senior Program Development & Research Associate of the American Planning Association, Project Manager of MoBroadbandNow, Missouri's NTIA-funded State Broadband Initiative program, and Project Manager of ICMA. She earned a bachelor's degree in Growth and Structure of Cities at Bryn Mawr College and a Master's in City and Regional Planning at Cornell University.

Andy Pollock

APollock@remboltlawfirm.com | https://remboltlawfirm.com/our-attorneys/

Andy Pollock serves as a Lobbyist and Lawyer for Rembolt Ludtke of Lincoln, with a focus on strategic government relations, transportation law, and energy and utility law. He previously served as the Executive Director, General Counsel for the Nebraska Public Service Commission. He has a bachelor's in Journalism, News-Editorial Journalism, Political Science, and English, earning a Juris Doctor degree of Law, all from the University of Nebraska-Lincoln.

NOTES:

Thank you to today's event sponsors:

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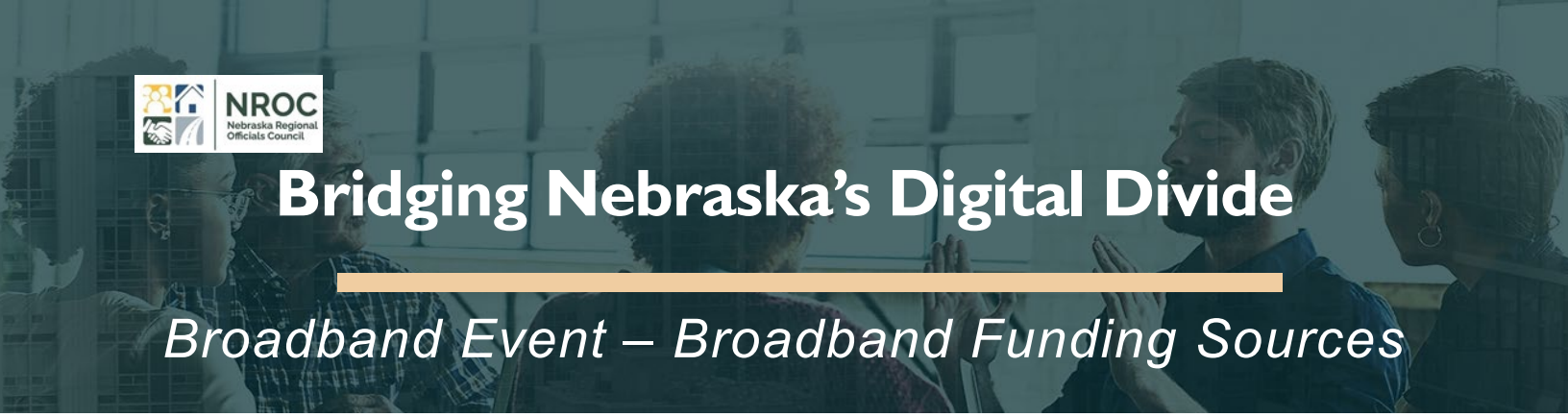

Bridging Nebraska's Digital Divide

Broadband Event – Broadband Funding Sources

Federal Funding Sources

FCC

1. **Rural Digital Opportunity Fund (RDOF) – ended**
   - $60 million awarded to bids in Nebraska
   - *Relevance:* Bid areas may be ineligible for funding from other sources.
   - Review award status and project completion timelines before exploring overlapping projects.

2. **High-Cost Support and Connect America Funds**
   - Billions of dollars in support to eligible carriers serving rural areas across the US.
   - Eligibility standards and target areas identified by FCC on a yearly basis.

United States Department of Agriculture - USDA

1. **Rural e-Connectivity Program (ReConnect) - www.usda.gov/reconnect**
   - Application period ended March 9, 2022 for current round of funding, but worth monitoring due to previous application period extension.
   - Eligible areas lack terrestrial fixed broadband service of at least 100/20 with preference for areas without 25/3 service.

2. **Telecommunications Infrastructure Loans & Loan Guarantees**
   - Eligible applicants include providers and governmental entities.
   - May be used to finance new construction/improvements of existing infrastructure, and network expansion, with other uses possible in some circumstances.

3. **Community Connect Grants - www.rd.usda.gov**
   - $100,000-$3,000,000 available per project.
   - Eligible areas are incorporated communities lacking 10/1 terrestrial broadband service (as of the most recent round of funding).

National Telecommunications & Information Administration

1. Broadband Equity, Access, and Deployment Program (BEAD)

- $42.45 Billion will be distributed to all states in FY2022 based on a needs assessment that is taking place right now. $100 million to Nebraska.
- NTIA will make grants to states. If a state fails to apply for funding, a local government could apply on their behalf.
- May/June application release.

2. Middle-Mile Connectivity Program

- NTIA is currently in the process of formulating rules & regulations for middle-mile grants.
- Funds middle-mile networks (*not* offering residential or business subscriptions) to establish or update backbone infrastructure.
- $1 billion in funding over 5 years.

State

Nebraska Public Service Commission

1. Nebraska Broadband Bridge Program (NBBP) – https://psc.nebraska.gov → Telecom/NUSF → NBBP

- Round 1 complete, Applications available by May and due by July 1st.
- Competitive grants with a minimum 50% matching requirement up to $5 million per project.

2. Nebraska Universal Service Fund (NUSF) – https://psc.nebraska.gov → Telecom/NUSF → NUSF → NUSF High-Cost

- Offers ongoing support for telephone and broadband services in high-cost areas.
- Limited to incumbent carriers.

American Rescue Plan Act - ARPA

1. Coronavirus Capital Projects Fund (CCPF)

- $128 million allocated to Nebraska
- May be used to fund projects directly enabling remote work, learning, and health monitoring including broadband infrastructure deployment and multipurpose community center construction.

2. Other Coronavirus Recovery Funds

- Approximately $1 billion in coronavirus recovery funding reserved for Nebraska.
- Broadband among numerous eligible uses.
- Legislative bills appropriating ARPA funds under consideration in the current session.

Local

1. ARPA Coronavirus Local Fiscal Recovery Fund - NACO | ARPA Updates (nacone.org)

- Final Rule released in January 2022 widened broadband project eligibility, allowing counties and cities to assess the need for improved broadband connectivity
- Encourages support of fiber optic projects and public-private partnerships.
- Funds must be obligated by the end of 2024 and expended by the end of 2026.

2. Local Option Municipal Economic Development Act (LB840)

- Allows communities to fund economic development activities with property or sales tax revenue after securing voter approval for an economic development plan.
- Several Nebraska towns have leveraged LB840 funds to incentivize fiber optic construction in business districts, including Seward and Milford.

Digital Inclusion – Equity and Planning

1. State Digital Equity Capacity Grant & Program Planning Grants (NTIA)

- Grants designed to help fund planning and calculate capacity for digital equity programs.
- $1.25 Billion over Five years, counties are an eligible recipient of a sub grant
- Only states can apply and use these grants, but will accept public input on how best to use the funds.

2. Digital Equity Competitive Grants

- Eligible to any political subdivision, agency, or instrumentality of state.
- Development and implementation of digital inclusion activities.
- Facilitate adoption of broadband by underserved populations for educational and employment opportunities. Including training programs that cover basic, advanced, and applied skills.
- To construct, upgrade, expand, or operate new or existing public access computing centers for covered populations through community anchor institutions.

There are other funding sources that are geared to specific industries, such as telehealth, and to increase access to low-income households making broadband connectivity more affordable.

Federal Broadband Funding Programs

Source NITC 03/04/2022

	American Rescue Plan Act Broadband Funding for States		Infrastructure Investment and Jobs Act/ Bipartisan Infrastructure Law
	State & Local Fiscal Recovery	**Capital Projects**	**Broadband Equity, Access & Deployment Program**
Funding available	**State of Nebraska:** $1,040,157,440.40 **Counties**: $375,736,074 **Metropolitan Cities**: 176,030,046 **Non-entitlement Units:** $111,189,720	**U.S.:** $10,000,000,000 **Nebraska:** $128,740,178 **Each Tribal Government:** $167,504	**U.S.:** $42,450,000,000 **Nebraska**: $100,000,000+
Administrative/ Planning Funding Available		5% or $6.4 million	5% Pre-Deployment Planning 2% Administration of grant
Uses of Administrative/ Planning Funding		Costs of administering grant fund, providing technical assistance	**Pre-Deployment:** Research, data collection, outreach, technical assistance, employee training, broadband office
Areas eligible for broadband funding	**Final Rule:** Areas with identified need for additional broadband investment; Prioritize locations lacking reliable wireline 100/20 **Interim Final Rule:** Areas lacking reliable, wireline 25/3; Avoid locations with agreements to build wireline 100/20 by Dec. 2024	Areas without reliable wireline 100/20 (encouraged). If justified, can fund projects in areas with other funding commitments.	Unserved (lacking 25/3) and Underserved (lacking 100/20)
Eligible Uses	Public Health and Economic Impacts Premium Pay Revenue Loss Infrastructure Water and Sewer Broadband	Directly enable work, education and health monitoring & address critical needs Broadband Infrastructure Projects Digital Connectivity Projects Multi-Purpose Community Facility Projects	Unserved and underserved service projects Data collection and broadband mapping Connecting anchor institutions Service to multi-family buildings Broadband Adoption
Build out requirements	100/100 Mbps (unless not practicable) Or 100/20 but scalable if impracticable	100/100 Mbps- (unless impracticable) Fiber preference	100/20 Mbps
Application dates	—	**Deadline to Request Funding:** December 27, 2021 **Deadline to Submit Grant Plan:** September 24, 2022	Funding allocated after new FCC map available. Notice of Funding Opportunity issued 180 days after enactment inviting states to submit letter of intent. Letter of intent approved—get 5% for planning; must develop & submit broadband plan Initial proposal approved—get 20%+ Final proposal approved—get remaining $
Required Completion/ Obligation Dates	Funds obligated by Dec. 31, 2024; Projects complete by Dec. 31, 2026	All funds must be expended by December 31, 2026	Broadband service to all customers 4 years after receipt of the subgrant
Match Requirements	None specified	None specified	25% except in high cost areas
Notes	Treasury encourages recipients to prioritize broadband networks owned, operated or affiliated with local governments, nonprofits, and cooperatives	Treasury encourages Recipients to prioritize broadband networks owned, operated or affiliated with local governments, nonprofits, and cooperatives.	States may not exclude cooperatives, nonprofit organizations, public-private partnerships, private companies, public or private utilities, public utility districts, or local governments from eligibility for grant funds.

Digital Inclusion and Middle Mile Grant Programs (Infrastructure Investment and Jobs Act)					
	State Digital Equity Capacity Grant Program Planning Grants	**State Digital Equity Capacity Grants**	**Digital Equity Competitive Grant Program**	**Middle Mile Grants**	**Affordable Connectivity Fund**
Funding available	**Appropriation:** $60,000,000 **Minimum State Award:** $300,000 (.5 percent of total)	**Appropriation:** $240,000,000 for fiscal year 2022 $300,000,000 for fiscal years 2023-2026 **Minimum award:** $1,200,000 year 1 $1,500,000 in fiscal years 2023-2026 $7.2 million minimum over 5 years 3% Administration	**Appropriation:** $250,000,000 a year for first five fiscal years	**Appropriation:** $1,000,000,000 for fiscal years 2022 through 2026	**Appropriation:** $14 billion (from news reports) Amends the Emergency Broadband Benefit Fund to the Affordable Connectivity Fund. Provides $30 a month subsidy for broadband
Eligible Uses/Other Requirements	States receiving a planning grant will be required to develop a State Digital Equity Plan one year from the date of the award.	• Implement the State Digital Equity Plan and pursue digital inclusion activities consistent with the State Digital Equity Plan • Evaluate the efficacy of the digital inclusion efforts	• Develop and implement digital inclusion activities • Implement training programs that cover basic, advanced, and applied skills—or other workforce development programs, • Make available equipment or digital network technology for broadband services Requires 10% match	Middle-mile infrastructure is any broadband infrastructure that does not connect directly to an end-user. Requires 30% match	Amends the Emergency Broadband Benefit Fund to the Affordable Connectivity Fund Provides $30 a month subsidy for broadband for individuals with low incomes. Provides a $100 subsidy for devices (not smartphones).
Timing	Beginning in the first fiscal year after enactment, the NTIA will award planning grants. State must apply no later than 60 days after the NOFA is issued.	Capacity grants will be awarded not later than 2 years after planning grants are awarded States must apply no later than 60 days after the NOFA is issued. States have five years to spend their grant awards.	Grants are to be used for no more than 4 years	NTIA has 6 months to issue a notice of funding opportunity about the new program. Awardees must complete construction within five years.	

Competitive Grant/Loan Program—Federal				
	USDA Reconnect	**NTIA Broadband Infrastructure Program**	**Tribal Broadband Connectivity Program**	**Connecting Minority Communities Pilot Program**
Funding available	**U.S:** $1.15 Billion	U.S. $288 Million	**U.S.:** $980,000,000 NTIA will allocate up to $500,000 to each of the Federally Recognized Tribes	**U.S.:** $268,000,000
Eligible Entities	Corporations, LLCs and LLPs, cooperatives, state or local governments, Indian Tribes	Public-Private Partnerships	Eligible Native American, Alaska Native and Native Hawaiian entities	1) a historically Black college or university (HBCU); (2) a Tribal College or University (TCU); (3) a Minority-serving institution (MSI); or (4) a consortium
Areas eligible for broadband funding	Areas lacking 100/20 Areas lacking 25/3 score higher Can be used in RDOF areas. Points awarded for areas with low pop density, economic need, socially vulnerable communities, tribal lands, and non-telco applicants	A census block in which 25/3 Mbps broadband service is not available at one or more households or businesses in the census block. No broadband provider has been selected to receive enforceable support to build out 25/3 broadband	Tribal areas lacking 25/3 Mbps broadband A Tribal government may certify whether an area within its own "Tribal Lands" is "unserved," in lieu of using a non-tribal coverage/speed data set such as FCC 477 carrier sourced data.	
Eligible Uses	Broadband infrastructure projects	Broadband infrastructure projects	1. Broadband infrastructure deployment 2. Affordable broadband programs	Build the broadband and IT capacity of eligible institutions; Provide broadband education, awareness, training, access, equipment, and support; Provide subsidized broadband access and equipment
Build out requirements	100/100 Mbps	100/20 Mbps	NTIA encourages the submission of project proposals that deploy future-proof infrastructure to the extent feasible, e.g. fiber.	
Application dates	Application Period: Nov. 24, 2021-feb. 22, 2022	Applications due: August 17, 2021	Applications due: Sept. 1, 2021	Applications due: Dec. 1, 2021
Required Completion/Obligation Dates		1 year after receipt of grant funds	1 year after receipt of grant funds	2 years from receipt of grant funds
Match Requirements	25% for grants 50% for loan grants 0% for tribal areas and socially vulnerable communities	None Scoring bonus for match of 10% or more	None	None
Notes		No Nebraska applicants		

Bridging Nebraska's Digital Divide

Broadband Event – Taking the Next Steps

Define Your Role

☐ **1. [DEFINE]** After today's presentations and discussion, what does Broadband or Broadband infrastructure mean to you?

☐ a. How will you explain the value of broadband to a potential key player in your community/area?

☐ b. What assumptions can you anticipate others may have?

☐ c. What terms or areas of broadband do you still need more understanding on?

☐ d. What resources will you research to address your remaining questions?

e. Which speaker(s) or topic would you like to follow up with? What questions still need answered?

☐ **2. [FOCUS]** What does successfully *Bridging the Digital Divide* look like in your community/area? (Begin with the End in Mind)

☐ a. How do you become part of the solution? What role will you play?

☐ b. Identify the focus of your conversation with key players; articulate what you think your community needs to accomplish to address the broadband challenge?

☐ c. What is the first step you will take to start the conversation? And the next step?

- ☐ d. How does your experience – personal and professional relate to the broadband issue/target?

☐ **3.** How will your community/area prepare to compete for broadband funding?

☐ **4.** What help do you need to take the next step?

Committing to the Target

☐ **1. [FORMING THE TEAM]** Who from your community would you invite to this conversation?

☐ **2.** Who could be a co-champion(s) of the Broadband challenge to work with you?

☐ **3.** If you are not the one to lead the initial conversations, who is?

☐ **4.** When is the best time to start this conversation?

☐ **5.** Picture the most challenging group/person to influence - who can you partner with to approach the challenge?

☐ **6.** Are all industries and cross-sections of your community represented, list people in each, or a connecting person to that industry that you know:

- ☐ a. Education
- ☐ b. Business/Industry
- ☐ c. Agriculture
- ☐ d. Health Care
- ☐ e. Existing Internet Service Providers

☐ **7. [AIMING THE TARGET]** In defining an initial realistic action plan, what surprises, hurdles or diversions can you expect to encounter?

☐ **8.** What resources can you utilize to focus the conversation at the targeted goal?

Exploring Resources

☐ **1.** What's next for your community to be successful in pursuing broadband funding?

- *Digital Needs Assessment or Digital Inclusion Plan*
- Verify speed test data accurately portrays broadband for your area

Future Learning Opportunity: SCEDD & NDN- CR (Nebraska Development Network- Central Region) workshop – ***Cashing in on Broadband $'s: Review of State & Federal Applications, Exploring the Six Phases of a Digital Needs Assessment - Monday, April 25, 12pm, Kearney ESU.***

Learn More:

https://ruralbroadband.nebraska.gov/resources/DigitalInclusionWorkbookFillable.pdf

https://ruralbroadband.nebraska.gov/resources/Sixsteps.pdf

https://www.ncbroadband.gov/technical-assistance/playbook

☐ **2.** What broadband mapping tools should you use to help tell the story?

Nebraska Broadband Mapping Project (Public Service Commission): https://gis.ne.gov/portal/apps/webappviewer/index.html?id=ba42a254d4f14f4783a14193c12a443e > Select '**Speed Tiers**' under 'Layers'

FCC 477 data: https://broadbandmap.fcc.gov/#/

NTIA Esri mapping data: https://broadbandusa.maps.arcgis.com/apps/mapviewer/index.html > Options to select: 'FCC Form 477 Fixed Broadband / 'Ookla Speedtest for Global Broadband Performance' / 'ACS Internet Connectivity Variables'

Self-reported speed test data: https://www.nebraskaspeedtest.org/

Nebraska Library Commission – Broadband Fact Sheets (by County): http://nlc.nebraska.gov/stats/broadband/

☐ **3.** Who would benefit from watching today's recorded webinars?

☐ **4.** For additional technical, detailed information regarding broadband, visit Southeast Nebraska Economic Development District's - '*Broadband 101*' 4-part video series.

https://www.sendd.org/broadband-101

Who could you share this resource with to benefit your community's broadband understanding?

Define Success – Hitting the Target

☐ **1.** What does *success* look like for improved broadband in your community/area?

☐ **2.** What are the short-term benefits your community/area will realize when the broadband target(s) are met?

☐ **3.** What are the long-term benefits for your community/area when the broadband goals are met?

Community Digital Needs Assessment – Broadband Infrastructure

Phase 1: Identify a Broadband Planning Committee

- Recruit leaders and stakeholders from important sub-sections of the community
- Create local grassroots involvement, credibility, transparency and accountability
- Identify a "champion" to be your chairperson of committee

Phase 2: Set Broadband Goals

- Determine S.M.A.R.T. goals *(Specific, Measurable, Achievable, Relevant, Time bound)*
- Utilize your local Economic Development District to help facilitate goal-setting

Phase 3: Community Survey

- Assess your community's current broadband demands and needs is a critical component to submitting for funding
    - Survey is made available both on and offline that allows citizens to report a lack of services that meet their needs
    - Focus groups provide valuable feedback
- Public outreach campaigns to let citizens know why their participation is important for the future of your community

Phase 4: Identify Community Needs

- Review available speed test data and compare to survey results
- Evaluate SMART goals and align with identified needs

Phase 5: Investigate Possible Partnerships & Funding Resources

- A community should never come empty-handed to an initiative to expand broadband services. Utilize community survey results and federal reported data to leverage partnerships, pursue funding and possible additional broadband service providers.
- Consider future community improvement projects to maximize opportunities to improve broadband.

Phase 6: Building the Network by Securing Funding

- Submit competitive applications for funding
- Pursue all opportunities armed with community feedback, facts and data supporting your broadband needs

Bridging Nebraska's Digital Divide

Broadband Terminology & Glossary

Agencies

FCC	Federal Communications Commission
NITC	Nebraska Information Technology Commission
NROC	Nebraska Regional Officials Council, association of 8 economic development districts
NTIA	National Telecommunications and Information Administration. Part of the Department of Commerce
PSC	Public Service Commission
RBTF	Rural Broadband Task Force
RUS	Rural Utilities Service - part of the USDA
USDA	United States Department of Agriculture

Technical Terms

bandwidth	The total amount of data a network is able to transmit, including both upload and download traffic. Often quantified in Mbps.
broadband	The transmission of wide bandwidth data, voice, and video over a high speed internet connection.
buried/aerial fiber	The two main approaches to constructing fiber optic networks. Buried fiber involves trenching and/or boring and laying cabling underground, while aerial construction places fiber optic cabling on utilities poles. Aerial fiber is frequently cheaper but is at a greater risk of damage by weather, accidents, or other factors.
cable	Broadband via coaxial cables capable of high download speeds, but upload is often comparatively slow. May be subject to network congestion at peak use times.

Community Anchor Institutions	Schools, libraries, medical and healthcare providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and entities.
conduit	A small pipe through which telecommunications infrastructure, frequently fiber optic cabling, may be laid. Most often buried underground.
Digital Subscriber Line (DSL)	Broadband via copper telephone cables. Speed degrades sharply as the distance from multiplexers/hubs increases.
direct bury	Refers to fiber optic cabling laid without accompanying utilities conduit. Projects built this way are often cheaper and faster to build, but costlier to replace or maintain.
download / downstream	Refers to traffic from the internet to end users. Necessary for most uses of the internet, particularly streaming, videoconferencing, and file downloads. Often listed 25/10 Mbps (1st number is download speed)
Ethernet	A hardwired connection from a router to a computer or other device. Often faster and more reliable than WiFi, but limited by specific types of cables and/or ports used.
fiber	A high-speed data transmission medium delivered via thin filaments of glass into a single cable where the bundled glass filaments are then protected by an exterior sheath; also known as optic cables or fiber optics.
fixed wireless	The operation of wireless communication devices or systems to connect two fixed locations with a radio or other wireless link. Requires line-of-sight often through a dish or receiver attached to the roof and positioned to face the nearest wireless transmitter; not be confused with mobile or cellular broadband connection to cell towers.
jitter	The variation in time delay between when a signal is transmitted and when it's received over a network connection. High jitter negatively impacts "live" applications like streaming or videoconferencing.
latency	A measure of the time information takes to travel from a source to its destination. Measured in milliseconds. Below 100 is adequate for most purposes, with 20-40 being ideal. Higher latencies will impact network experience, particularly when streaming video/audio, videoconferencing, or online gaming. Impacted by both distance and network technology (fiber broadband is generally low-latency, while satellite, DSL, and fixed wireless networks are higher-latency).

Mbps - Megabits per Second	A measure of the speed at which a network transfers data between users and the internet. One thousand Mbps is referred to as a Gigabit (Gbps).
redundancy	A process of providing multiple paths for traffic, so that data can keep flowing even in the event of a failure.
satellite	Broadband via geostationary orbit or low-earth orbit satellites.
throughput	The total amount of data successfully transmitted over a network, rather than its theoretical capacity.
upload / upstream	Refers to traffic from end users to the internet. Necessary for file uploads, videoconferencing, online gaming, and so forth. Upstream traffic has increased substantially in recent years but remains smaller than downstream traffic. Often listed 25/10 Mbps (2nd number is upload speed)
WiFi	A wireless network transmitted by a router, while convenient, may be subject to interference from other wireless devices or architectural features.

Regulatory Terms

Census Block	A territorial division set forth by the US Census Bureau and used by many government agencies to assess broadband coverage and grant eligibility.
CLEC	Competitive Local Exchange Carrier. A telecommunications provider that offers service in an exchange area in which it is not the incumbent carrier.
Dark Fiber	Inactive (or "dark") portions of fiber optic cables. May be activated or leased and used for other purposes including telecommunications uses.
Dig-Once	Refers to politics adopted by states, counties, or cities that require the installation of utilities conduit during road construction projects. Conduit installed this way may then be leased to telecommunications companies, reducing overall project costs and expediting network construction.
Easements /Rights-of-Way	Arrangements between telecommunications companies and landowners or public entities that allow for network infrastructure to be constructed on land not owned by a telecommunications company.
ETC	Eligible Telecommunications Carrier. A specific designation by state regulators that allows companies to apply for and receive certain types of funding, but entails greater regulatory responsibilities.

Exchange Area	A territorial division created to facilitate landline telephone network construction and administration. Now used to regulate certain telecommunications
ILEC	Incumbent local exchange carrier. A company offering monopolized local telephone service before the Telecommunications Act of 1996 was designated as an incumbent carrier. Now applies to certain broadband providers.
FCC Form 477	Providers offering broadband services are required to report their coverage by census block to the FCC twice yearly, including maximum advertised speeds, company information, network technology, and consumer or business offerings. Reported on the census block level, it is frequently criticized for overstating coverage.
Last-Mile	The portion of a network that connects directly to subscribers.
Location Fabric	A major component of proposed FCC and state broadband map updates that would report availability at an address or parcel level, rather than by census block.
Middle-Mile	The portion of a network that does not connect directly to end subscribers. Also referred to as the internet "backbone." Frequently composed of high-throughput fiber optic infrastructure.
Overbuild	Refers to the construction of networks in areas already served by incumbent providers and the introduction of competitive service options for residents. Frequently controversial when public funding is involved.
Pole Sharing	Similar to easements, but referring specifically to utility poles. Securing pole-sharing agreements that allow a provider to install cabling on utility- or city-owned poles is frequently a major hurdle in network construction processes.
Underserved	A household as being a location that lacks access to reliable broadband service offered with a speed of not less than 100 megabits per second for downloads; and 20 megabits per second for uploads.
Unserved	Areas in which broadband service at or above a threshold speed is not available and that the threshold speed be no less than 25 Mbps download and 3 Mbps upload transmission capacity.
Wholesale Broadband	Refers to the leasing of middle-mile networks to last-mile providers. Wholesale bandwidth is used by businesses that are engaged in telecommunications, wholesale internet access, or wholesale ISP services.