

2023
ANNUAL REPORT
ON THE STATUS OF
BROADBAND DEVELOPMENT



Contents

Letter from the Director	4
Executive Summary	5
Status of Broadband Deployment Programs.....	6
<i>State Funded</i>	6
Nebraska Universal Service Fund (NUSF)	6
Nebraska Broadband Bridge Program (NBBP).....	9
Capital Projects Fund (CPF)	12
<i>Federal Funded</i>	18
Iowa Tribe of Kansas and Nebraska.....	18
Santee Sioux Nation.....	18
Nebraska Indian Community College	18
Quality of Broadband Service	19
<i>Average Number of Served Residents</i>	19
<i>Buildout Cost</i>	23
<i>Technology Summary</i>	23
Fiber	24
Fixed Wireless	24
Digital Subscriber Line (DSL).....	24
Cable	24
Strategic Plan Updates.....	27
Nebraska Broadband Office’s Outreach	27
Nebraska Digital Equity.....	31
<i>Digital Equity Public Collaboration</i>	31
Tribal Consultations	33
Other Engagements	33
<i>Needs Assessment</i>	35
Impact on Communities.....	35
Covered Population with Internet Access.....	35
Covered Population Needs and Barriers.....	36
Broadband Affordability.....	40

Next Steps 41

Federal Broadband Advocacy 41

Appendix A – Nebraska Strategic Broadband Plan.....43

Appendix B – Tribal Leader Letter 64

Letter from the Director

Located within the heartland of the United States, Nebraska is a vibrant agricultural state with growing metropolitan centers. Its population is nearly 2 million and has a land area of over 77,000 square miles. This leads Nebraska to have a population density of nearly 26 people per square mile, with over two-thirds of the state's population considered Urban.

As such, Nebraska is a state split between its rural and urban inhabitants more than many other states in the United States. This provides many great benefits to Nebraskans overall, but also provides many acute challenges concerning Broadband deployment as population density strongly correlates with cost. It is the one goal of the Nebraska Broadband Office to ensure every unserved Nebraskan is taken care of no matter if they live in the most urban center, or the most rural homestead. It will take a village to achieve this, and we all will have to villagers and work together.

Every Nebraskan relies on Broadband in some form or another, whether that is purely for use in the home or for business. My office is here to support that need and work with our great provider community to make high-speed, affordable broadband available across the State of Nebraska. We are striving to be the most transparent, accessible, and easiest-to-work-with state broadband office the country. Through the administration of the BEAD program and coordination with our sister agencies, we are confident that we will be able to reach every unserved Nebraskan with quality broadband service by the end of the decade.

Sincerely,



Patrick Haggerty

State Broadband Director | Nebraska Broadband Office



Executive Summary

This report covers the requirements of the annual report outline in LB 683 (2023). These requirements are as follows:

1. Describe the status of all publicly administered broadband deployment programs, including the number of projects funded through October of the report year;
2. Describe the quality of broadband service being provided to Nebraska residents;
3. Provide any updates to the strategic plan;
4. Summarize the Nebraska Broadband Office's outreach efforts and collaboration with all interested stakeholders;
5. Provide an update on efforts to promote digital equity and inclusion on behalf of Nebraska residents; and
6. Provide an update on state advocacy on broadband issues being conducted at the federal level.

The report was written using data and information provided by the Office of the Chief Information Officer (OCIO) and the Nebraska Public Service Commission (PSC) through ongoing collaboration concerning broadband service.

Status of Broadband Deployment Programs

1. (i) Describe the status of all publicly administered broadband deployment programs, including the number of projects funded through October of the report year;

State Funded

Currently, there are three state-funded broadband buildout programs administered by the State of Nebraska. Each of these programs are administered by the Nebraska Public Service Commission (PSC) through statutes established in LB686 (1997), LB338 (2021), and LB1024 (2022). In total, **\$124,330,717.95 was awarded** in funding across the three programs in the report year (10/2022-10/2023). Each of these programs were established with distinct structures to achieve the universal goal of broadband service for all Nebraskans. Each of these programs were operative in the last report year and will be discussed within their own sections below.

Nebraska Universal Service Fund (NUSF)

The NUSF was created in 1997 by the Nebraska Telecommunications Universal Service Fund Act and prompted PSC to open an investigation on how to meet the universal voice service obligations set forth by the new statute concerning voice. This investigation culminated in 1999 with PSC implementing a multi-year transitional mechanism to reform intercarrier compensation and establishing funding from NUSF. In 2001, PSC sought comment on methodologies to determine permanent funding for NUSF from Nebraska eligible telecommunications carriers (ETCs). In 2002, PSC adopted goals for the NUSF long-term support mechanism set forth as outlined in the 1997 legislation.

This mechanism is funded through a surcharge differentiated between residential (\$1.75 per connection) and business services (6.95% assessment). Originally, the residential surcharge was assessment based, but was changed on a per connection basis in 2019. These surcharges provide all funding necessary to support high-cost areas throughout the State and ensure that the quality service provided is affordable.

When the legislature passed the Nebraska Telecommunications Universal Service Fund Act it provided a wide latitude to PSC to create and regulate programs to further the goals set out within the legislation. As such, the legislature largely handed over policy decisions to PSC. PSC then split NUSF into several subprograms, each denoted by an order number which went beyond the scope of simply dealing with voice, and now address broadband development.

The order numbers specific to broadband buildout are NUSF-108, NUSF-99, And NUSF-131. One of the criteria for NUSF-108 awards was changed recently, requiring projects filed on or after 1/1/2022 to provide a minimum broadband speed of 100/100 Mbps pursuant to Neb. Rev. Stat. 86-324.01. The other subprograms included are NUSF-99 and NUSF-131. So far, \$42,633,652.72 has been obligated through the report year and \$5,559,398.58 has been expended as indicated in *Figure 1* below.

Company	NUSF Program	Year	Award Amount	Paid	Deadline
Windstream Nebraska, Inc.	99	2022	\$ 1,109,008.00	\$ -	1/14/2024
Windstream Nebraska, Inc.	99	2022	\$ 6,240,397.12	\$ -	1/14/2024
Qwest Corporation	99	2022	\$ 52,545.00	\$ -	1/22/2024
Qwest Corporation	99	2022	\$ 1,803,410.90	\$ -	1/22/2024
Qwest Corporation	99	2022	\$ 4,296,706.00	\$ -	1/22/2024
Qwest Corporation	99	2022	\$ 4,052,998.00	\$ -	1/22/2024
United Telephone Company of the West	99	2022	\$ 655,180.75	\$ -	1/22/2024
United Telephone Company of the West	99	2022	\$ 3,188,859.31	\$ -	1/22/2024
Qwest Corporation	99	2023	\$ 2,797,143.77	\$ -	1/24/2025
Qwest Corporation	99	2023	\$ 4,813,303.19	\$ -	1/24/2025
Qwest Corporation	99	2023	\$ 2,824,456.87	\$ -	1/24/2025
Great Plains	108	2022	\$ 321,325.70	\$ 240,797.13	4/27/2024
Great Plains	108	2022	\$ 66,136.81	\$ 49,561.28	4/27/2024
Hartman Telephone Exchanges, Inc.	108	2022	\$ 6,100.00	\$ 4,315.13	5/20/2024
Great Plains	108	2022	\$ 704,017.34	\$ 571,532.88	9/23/2024
Great Plains	108	2022	\$ 218,011.03	\$ 176,987.68	9/23/2024
Great Plains	108	2022	\$ 755,200.80	\$ 755,200.80	9/26/2024
Great Plains	108	2022	\$ 522,431.38	\$ 522,431.38	9/26/2024
Great Plains	108	2022	\$ 893,433.12	\$ 893,433.12	9/26/2024
Great Plains	108	2022	\$ 105,099.09	\$ 105,099.09	9/26/2024
Great Plains	108	2022	\$ 557,940.82	\$ 340,589.03	10/14/2024
Great Plains	108	2022	\$ 508,646.07	\$ 296,059.96	10/14/2024
Consolidated Telco	108	2022	\$ 120,000.00	\$ -	12/30/2024
Consolidated Telco	108	2022	\$ 25,000.00	\$ -	12/30/2024
Consolidated Telco	108	2022	\$ 300,000.00	\$ -	12/30/2024
Consolidated Telco	108	2022	\$ 114,652.01	\$ -	12/30/2024
Consolidated Telephone Company	108	2022	\$ 400,000.00	\$ -	12/30/2024
Consolidated Telephone Company	108	2022	\$ 345,174.90	\$ -	12/30/2024
Consolidated Telecom, Inc.	108	2022	\$ 50,000.00	\$ -	12/30/2024

Consolidated Telecom, Inc.	108	2022	\$	259,255.53	\$	-	12/30/2024
Curtis Telephone Company	108	2022	\$	80,676.05	\$	-	12/30/2024
Curtis Telephone Company	108	2022	\$	56,701.90	\$	-	12/30/2024
Pierce	108	2022	\$	87,395.70	\$	-	12/27/2024
Nebraska Central Telephone Company	108	2022	\$	158,448.13	\$	-	12/27/2023
Nebraska Central Telephone Company	108	2022	\$	189,126.26	\$	-	12/27/2023
Nebraska Central Telephone Company	108	2022	\$	31,634.44	\$	-	12/27/2023
Nebraska Central Telephone Company	108	2022	\$	22,708.40	\$	-	12/27/2023
Benkelman Telephone Company, Inc.	108	2023	\$	105,056.39	\$	-	2/3/2025
Cozad	108	2023	\$	303,171.87	\$	-	5/30/2025
Great Plains	108	2023	\$	805,304.23	\$	355,193.57	7/31/2025
Great Plains	108	2023	\$	17,207.93	\$	6,877.88	7/31/2025
Great Plains	108	2023	\$	297,468.62	\$	182,673.99	8/1/2025
Great Plains	108	2023	\$	3,442.13	\$	1,902.85	8/1/2025
Great Plains	108	2023	\$	96,086.02	\$	79,604.85	8/2/2025
Great Plains	108	2023	\$	152,191.23	\$	50,349.48	8/8/2025
Great Plains	108	2023	\$	543,842.82	\$	179,924.84	8/8/2025
Great Plains	108	2023	\$	1,136,255.09	\$	546,077.49	8/8/2025
Great Plains	108	2023	\$	417,687.50	\$	200,786.15	8/8/2025
Hamilton Telecommunications	131	2022	\$	22,814.50	\$	-	8/30/2024
Total				\$42,633,652.72	\$	5,559,398.58	

Figure 1

Nebraska Broadband Bridge Program (NBBP)

On May 26, 2021, Governor Pete Ricketts signed the Nebraska Broadband Bridge Act, LB 388 (2021), which created the NBBP to facilitate and fund the deployment of broadband networks in unserved and underserved areas of Nebraska. Each biennium the legislature must appropriate \$20 million each fiscal year from the State General Fund to be distributed as grants through the program and to pay administrative costs associated with the program. PSC is allowed under Neb. Rev. Stat. 86-1310 to adopt and promulgate rules and regulations to carry out the NBBP.

PSC is directed by the legislature to distribute grants based on three priorities ordered accordingly:

1. A project in an area that is determined to be unserved by PSC pursuant to Neb. Rev. Stat. 75-160 or Neb. Rev. Stat. 86-166 and is in need of further support but has not received public assistance for the development of a broadband network.
2. A project in a similarly determined unserved area that has received federal support for development of a broadband network that will not be completed within 24 months after the grant application deadline if PSC determines that a grant through NBBP will accelerate the deployment of the broadband network.
3. A project in a similarly determined unserved area that PSC determines to have a digital inclusion plan.

Furthermore, a minimum weighted scoring system was established by the legislature with broad allowances for PSC to make adjustments to rank the applications received each fiscal year. The legislature determined the following criteria to be included at a minimum:

1. The financial, technical, and legal capability of the applicant to deploy and operate broadband internet service.
2. Whether the applicant is an ETC.
3. Ability of the applicant to offer comparable market rates inside the project area as they do outside of the project area.
4. Available minimum broadband speeds scored in favor of higher speeds, with a minimum of 100/100 Mbps.
5. Scalability of the project in the future.
6. Whether the applicant has committed to fund more than 50% of the total development costs of the project is located outside of a high-cost area, or more than 25% of the total development costs of the project is located inside a high-cost area.
 - a. High-cost areas are to be determined by PSC.

Awards for the fiscal year 2023 cycle are in brown in *Figure 2* below.

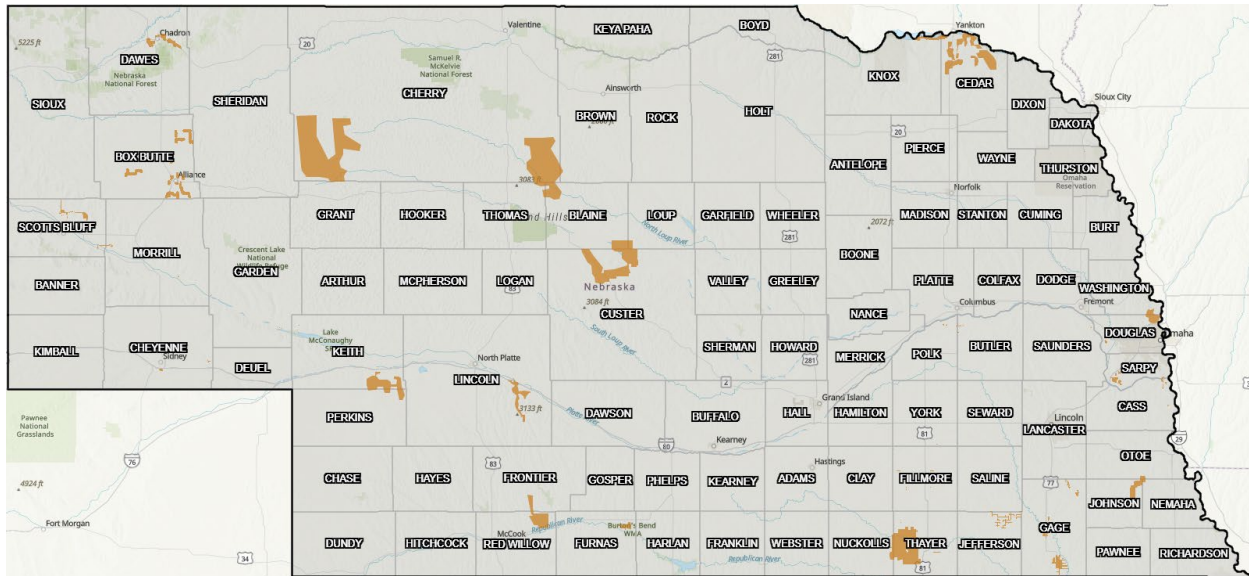


Figure 2

Figure 3 below represents all projects funded in the 2023 NBBP cycle. Note that each of the projects are due on 6/6/2024 and 50% of the grant funding committed has been expended with the remaining 50% still obligated to the projects.

Company	Total Est Cost	Match %	Grant Funding Committed
Consolidated Telephone Company	\$ 525,784.00	80%	\$ 105,157.00
Cox Nebraska Telcom, LLC	\$ 1,245,732.00	25%	\$ 934,299.00
Cox Nebraska Telcom, LLC	\$ 430,715.00	25%	\$ 323,037.00
Cox Nebraska Telcom, LLC	\$ 170,363.00	38%	\$ 105,343.00
Cox Nebraska Telcom, LLC	\$ 2,577,294.00	81%	\$ 500,000.00
Cozad Telephone Company	\$ 1,040,170.00	38%	\$ 640,170.00
Curtis Telephone Company	\$ 97,965.00	61%	\$ 38,207.00
Diller Telephone/Diode Cable Company	\$ 1,468,400.00	45%	\$ 807,620.00
Diller Telephone/Diode Cable Company	\$ 431,000.00	30%	\$ 301,700.00
Eagle Broadband Investments, LLC dba Vyve Broadband	\$ 216,305.00	50%	\$ 108,153.00
Eagle Broadband Investments, LLC dba Vyve Broadband	\$ 676,008.00	50%	\$ 338,004.00
Eagle Broadband Investments, LLC dba Vyve Broadband	\$ 135,406.00	50%	\$ 67,703.00
Glenwood Telecommunications, Inc.	\$ 334,384.73	25%	\$ 250,788.55

Glenwood Telecommunications, Inc.	\$	1,190,547.46	25%	\$	892,910.59
Great Plains Communications	\$	259,750.00	25%	\$	194,813.00
Great Plains Communications	\$	214,897.00	25%	\$	161,173.00
Great Plains Communications	\$	192,708.00	25%	\$	144,531.00
Great Plains Communications	\$	215,820.00	25%	\$	161,865.00
Great Plains Communications	\$	334,719.00	25%	\$	251,039.00
Great Plains Communications	\$	257,776.00	25%	\$	193,332.00
Great Plains Communications	\$	88,192.00	25%	\$	66,144.00
Great Plains Communications	\$	116,049.00	25%	\$	87,037.00
Great Plains Communications	\$	90,114.00	25%	\$	67,586.00
Great Plains Communications	\$	1,989,000.00	25%	\$	1,491,750.00
Hershey Cooperative Telephone Company	\$	1,192,325.00	25%	\$	894,244.00
MOBIUS COMMUNICATIONS COMPANY	\$	3,150,000.00	25%	\$	2,362,500.00
MOBIUS COMMUNICATIONS COMPANY	\$	480,000.00	25%	\$	360,000.00
Northeast Nebraska Telephone Company	\$	1,803,890.00	25%	\$	1,352,918.00
Northeast Nebraska Telephone Company	\$	1,646,402.00	25%	\$	1,234,802.00
Pinpoint Communications, Inc.	\$	2,073,046.00	25%	\$	1,554,784.00
Pinpoint Communications, Inc.	\$	2,344,001.00	25%	\$	1,758,001.00
Pinpoint Communications, Inc.	\$	425,387.00	25%	\$	319,040.00
Pinpoint Communications, Inc.	\$	1,665,378.00	25%	\$	1,249,034.00
Pinpoint Communications, Inc.	\$	238,622.00	25%	\$	178,966.00
Skywave Wireless, Inc.	\$	302,900.00	55%	\$	136,305.00
Skywave Wireless, Inc.	\$	256,600.00	55%	\$	115,470.00
Three River Communications	\$	804,470.00	25%	\$	603,352.00
Total		\$ 30,682,120.19	34%	\$	20,351,778.14

Figure 3

Capital Projects Fund (CPF)

On April 18, 2022, Governor Pete Ricketts signed the Economic Recovery Act, LB1024 (2022), which created the 2023 CPF Grant Cycle to facilitate and fund the deployment of broadband networks in unserved and underserved areas of rural Nebraska. This program received a one-time infusion of funds from the American Rescue Plan Act of 2021. The purpose of the funding was to allow the State to carry out capital projects enabling work, education, and health monitoring in response to the public health emergency at the time. The broadband buildout locations were limited to locations in the 1st and 3rd Congressional Districts pictured below in *Figure 4* and *Figure 5*.

Congressional District 1 (CD-1)

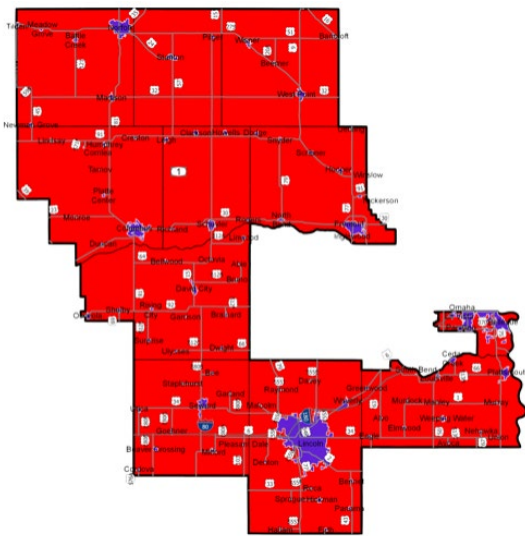


Figure 4

Congressional District 3 (CD-3)

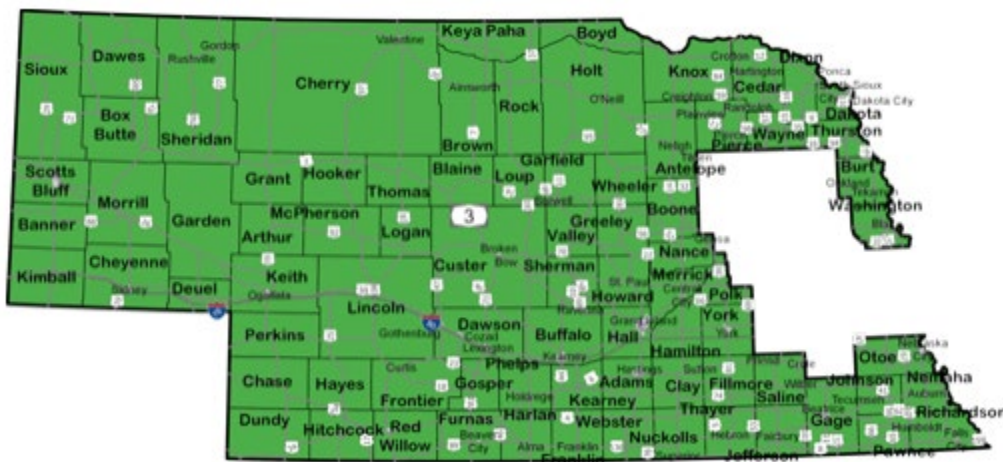


Figure 5

The State of Nebraska was awarded \$128,740,178 for the fulfillment of the goals established by the CPF, inclusive of administrative costs. The original plan submitted to treasury was for all of the funding to be awarded to broadband, but the Economic Recovery Act changed the framework and allocated the funding into categories as follows:

1. No less than \$40 million for broadband projects in CD-1
2. No more than \$35 million for multipurpose community facilities in CD-2
3. No less than \$40 million for broadband projects in CD-3
4. No more than \$5 million for total administration of the program

The funds were statutorily awarded to the Department of Economic Development (DED), who signed a Memorandum of Understanding (MOU) with PSC for PSC to administer the broadband projects in CD-1 and CD-3 in a manner similar to the NBBP. As such, qualifying projects in this program must provide service scalable to 100/100 Mbps or greater. No match is required but is encouraged for additional points to be awarded. The provider community on average was able to match grants at 15%, with some projects matching as high as 60%.

Neb. Rev. Stat. 81-12,245 defined eligible project areas to be either unserved or underserved areas within CD-1 or CD-3 as defined by PSC. CD-3 projects must be entirely located within the geographical boundaries (as defined by the 2020 US Census) of cities of the second class and villages. Cities of the second class and villages are defined as followed:

- **Cities of the second class:** Neb. Rev. Stat. 17-101 states these are municipalities containing between 800 and 5,000 inhabitants, unless such an entity adopts or retains a village form of government.
- **Villages:** Neb Rev. Stat. 17-201 states these are municipalities containing between 100 and 800 inhabitants. Incorporated villages with fewer than 100 residents are also considered eligible project areas for the purposes of the CPF program.

Due to a lack of quality qualifying awards in CD-3, only about half of the obligated funds were disbursed in the first round of grants. Therefore, a second round of grants will utilize the remaining program funds. For the 2023 cycle, awards were made in the areas designated in *Figure 7* below by yellow and red dots for CD-3 and CD-1 respectively.

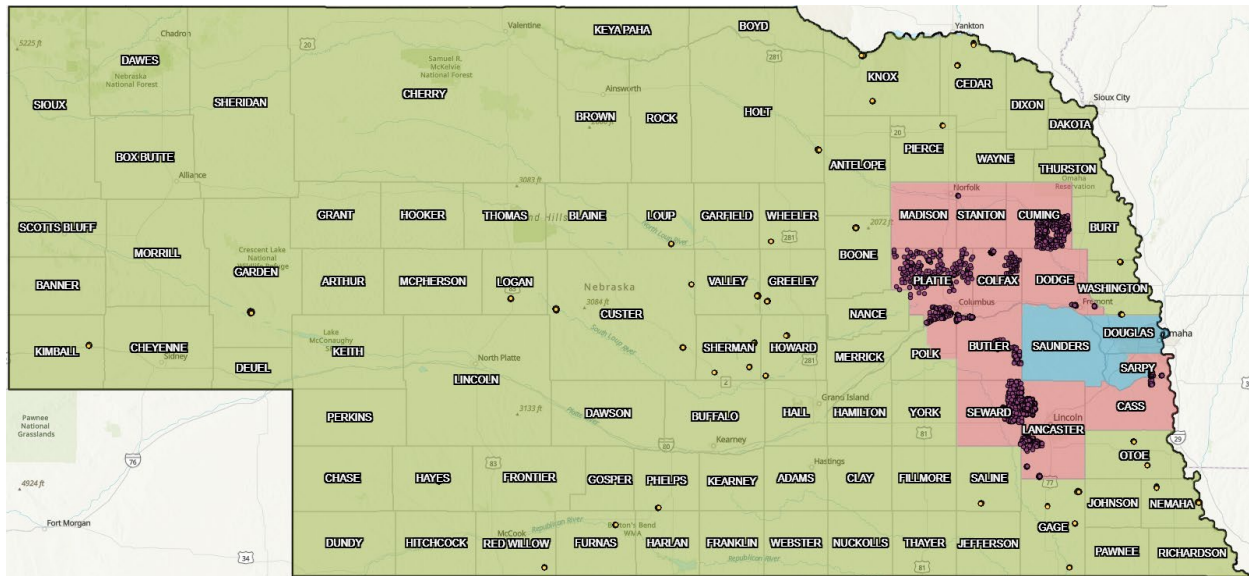


Figure 7

Figure 8 below represents all projects funded in the first 2023 NBBP cycle, all of which must be completed by December 27, 2024. To ensure compliance with grant requirements, funds for projects are distributed at specific intervals during and after construction, and the final grant payment is not made until all requirements have been met. Therefore, per the schedule, only one-quarter of the funds have been paid to-date. The schedule to disburse funds is as follows:

1. One-quarter disbursed upon award of the grant
2. One-quarter disbursed in the ninth month following the award (March 2024)
3. One-half disbursed upon completion of the buildout, successful speed testing results, and receipt of invoice submittals justifying expenses

Applicant	District	Cost	Grant	Match
ALLO Communications LLC	1	\$ 3,744,083.00	\$ 3,558,083.00	5%
Windstream Nebraska, Inc.	1	\$ 3,200,584.71	\$ 3,200,584.71	0%
ALLO Communications LLC	1	\$ 3,480,126.00	\$ 3,184,126.00	9%
Spectrum Mid-America, LLC	1	\$ 4,213,095.00	\$ 3,183,095.00	24%
Skywave Wireless, Inc.	1	\$ 2,612,426.60	\$ 2,586,302.33	1%
ALLO Communications LLC	1	\$ 2,672,439.00	\$ 2,532,439.00	5%
Northeast Nebraska Telephone Company	1	\$ 2,443,102.00	\$ 2,443,102.00	0%
Skywave Wireless, Inc.	1	\$ 2,423,357.00	\$ 2,399,123.43	1%
Midstates Data Transport, LLC d/b/a Stealth Broadband	1	\$ 2,591,200.00	\$ 2,202,520.00	15%

Qwest Corporation d/b/a CenturyLink QC	1	\$ 1,986,000.00	\$ 1,787,400.00	10%
Eagle Broadband Investments, LLC dba Vyve Broadband	1	\$ 2,357,507.00	\$ 1,768,130.00	25%
Midstates Data Transport, LLC d/b/a Stealth Broadband	1	\$ 2,003,275.00	\$ 1,702,784.00	15%
Midstates Data Transport, LLC d/b/a Stealth Broadband	1	\$ 1,971,615.00	\$ 1,675,873.00	15%
Midstates Data Transport, LLC d/b/a Stealth Broadband	1	\$ 1,609,725.00	\$ 1,368,266.00	15%
Qwest Corporation d/b/a CenturyLink QC	1	\$ 1,367,505.00	\$ 1,029,679.00	25%
Midstates Data Transport, LLC d/b/a Stealth Broadband	1	\$ 1,138,150.00	\$ 1,024,335.00	10%
Qwest Corporation d/b/a CenturyLink QC	1	\$ 816,460.00	\$ 734,814.00	10%
ALLO Communications LLC	1	\$ 735,494.00	\$ 734,494.00	0%
ALLO Communications LLC	1	\$ 735,673.00	\$ 599,673.00	18%
Midstates Data Transport, LLC d/b/a Stealth Broadband	1	\$ 658,820.00	\$ 559,997.00	15%
Cox Nebraska Telcom, LLC	1	\$ 558,276.00	\$ 527,416.00	6%
ALLO Communications LLC	1	\$ 473,997.00	\$ 444,997.00	6%
Cox Nebraska Telcom, LLC	1	\$ 488,214.00	\$ 419,430.00	14%
Qwest Corporation d/b/a CenturyLink QC	1	\$ 461,198.00	\$ 415,078.00	10%
Qwest Corporation d/b/a CenturyLink QC	1	\$ 494,648.00	\$ 370,986.00	25%
Cox Nebraska Telcom, LLC	1	\$ 169,229.00	\$ 153,046.00	10%
Stanton Telecom, Inc.	1	\$ 87,638.00	\$ 78,874.00	10%
Cox Nebraska Telcom, LLC	1	\$ 97,763.00	\$ 41,792.00	57%
Great Plains Communications	3	\$ 2,095,489.00	\$ 2,095,489.00	0%
Great Plains Communications	3	\$ 1,944,780.00	\$ 1,944,780.00	0%
Great Plains Communications	3	\$ 1,648,040.00	\$ 1,648,040.00	0%

Great Plains Communications	3	\$ 1,546,210.00	\$ 1,546,210.00	0%
Great Plains Communications	3	\$ 1,182,180.00	\$ 1,182,180.00	0%
Great Plains Communications	3	\$ 1,166,910.00	\$ 1,166,910.00	0%
Great Plains Communications	3	\$ 940,161.00	\$ 940,161.00	0%
Dalton Telephone Company LLC dba Highline	3	\$ 999,623.00	\$ 849,680.00	15%
Hartington Telecommunications Co., Inc. (dba Hartelco)	3	\$ 856,810.00	\$ 813,969.00	5%
Inventive Wireless of Nebraska, LLC dba Vistabeam	3	\$ 1,007,820.00	\$ 755,865.00	25%
Nebraska Central Telephone Company (NCTC)	3	\$ 1,047,381.00	\$ 680,798.00	35%
Hartington Telecommunications Co., Inc. (dba Hartelco)	3	\$ 640,630.00	\$ 608,598.00	5%
Pinpoint Communications, Inc.	3	\$ 594,000.00	\$ 504,900.00	15%
Nebraska Central Telephone Company (NCTC)	3	\$ 782,172.00	\$ 469,303.00	40%
Great Plains Communications	3	\$ 456,176.00	\$ 456,176.00	0%
Nebraska Central Telephone Company (NCTC)	3	\$ 517,448.00	\$ 336,341.00	35%
Nebraska Central Telephone Company (NCTC)	3	\$ 508,465.00	\$ 330,502.00	35%
AMG Technology Investment Group, LLC dba Nextlink Internet	3	\$ 320,809.88	\$ 316,527.40	1%
Windstream Nebraska, Inc	3	\$ 314,453.88	\$ 314,453.88	0%
Nebraska Central Telephone Company (NCTC)	3	\$ 407,804.00	\$ 305,853.00	25%
Hartman Telephone Exchanges, Inc./BWTelcom Long Distance, Inc.	3	\$ 304,350.00	\$ 304,350.00	0%
Qwest Corporation d/b/a CenturyLink QC	3	\$ 419,902.00	\$ 293,931.00	30%

AMG Technology Investment Group, LLC dba Nextlink Internet	3	\$ 313,395.24	\$ 282,055.71	10%
AMG Technology Investment Group, LLC dba Nextlink Internet	3	\$ 301,716.43	\$ 271,544.79	10%
Pinpoint Communications, Inc.	3	\$ 294,000.00	\$ 249,900.00	15%
Nebraska Central Telephone Company (NCTC)	3	\$ 444,326.00	\$ 244,379.00	45%
Qwest Corporation d/b/a CenturyLink QC	3	\$ 256,550.00	\$ 243,723.00	5%
Nebraska Central Telephone Company (NCTC)	3	\$ 267,987.00	\$ 214,390.00	20%
Pinpoint Communications, Inc.	3	\$ 240,000.00	\$ 204,000.00	15%
Nebraska Central Telephone Company (NCTC)	3	\$ 370,201.00	\$ 203,611.00	45%
Windstream Nebraska, Inc	3	\$ 196,898.55	\$ 196,898.55	0%
Nebraska Central Telephone Company (NCTC)	3	\$ 213,536.00	\$ 170,829.00	20%
Nebraska Central Telephone Company (NCTC)	3	\$ 198,156.00	\$ 168,433.00	15%
Nebraska Central Telephone Company (NCTC)	3	\$ 203,668.00	\$ 152,766.00	25%
Pinpoint Communications, Inc.	3	\$ 72,000.00	\$ 61,200.00	15%
AMG Technology Investment Group, LLC dba Nextlink Internet	3	\$ 137,759.12	\$ 55,105.65	60%
AMG Technology Investment Group, LLC dba Nextlink Internet	3	\$ 87,486.60	\$ 34,994.64	60%
Total		\$ 68,890,895.01	\$ 61,345,287.09	15%

Figure 8

Federal Funded

Three Federally Funded grants were disbursed in the report year. These were awarded to the Iowa Tribe of Kansas and Nebraska, the Santee Sioux Nation, and the Nebraska Indian Community College as outlined in *Figure 9* below.

Program	Recipient	Funding Amount
Tribal Broadband Connectivity Program	Iowa Tribe of Kansas and Nebraska	\$ 498,000.00
Tribal Broadband Connectivity Program	Santee Sioux Nation	\$ 500,000.00
Connecting Minority Communities Pilot Program	Nebraska Indian Community College	\$ 2,938,816.00

Figure 9

Each of these grants have a description posted on the Internet for All website that provide a snapshot of what the funding will be used for by the recipient. The descriptions are as follows:

Iowa Tribe of Kansas and Nebraska

This Broadband Use and Adoption project aims to replace end of life equipment which will service existing public Wi-Fi at community anchor institutions. With revitalized broadband capabilities, the applicant will create a technology learning center for Staff and Tribal members, which will further digital inclusion efforts to include educational and workforce opportunities, public health, and economic development.

Santee Sioux Nation

This Broadband Infrastructure Deployment project will deploy a portion of the 40 2.5 GHz channels for 25/3 Wireless Internet Service to provide Telehealth, Distance Learning, and other commercial LTE solutions and wireless services to the Tribal members living on Tribal land in Knox County.

Nebraska Indian Community College

Nebraska Indian Community College’s “Tribal Broadband Wireless Expansion” project aims to bridge the digital divide for its students, the majority of whom are Native American. There are four main project activities: NICC will hire four key staff to significantly expand the school Information Technology department; increase campus cybersecurity; obtain and distribute laptops and hotspots for students and for select in-need community stakeholders; and purchase software for improved distance learning. On each campus, NICC will also build a One Button Studio, a simplified recording studio that gives users the ability to create a high-quality video recording.

Quality of Broadband Service

2. (ii) Describe the quality of broadband service being provided to Nebraska residents;

This report examines the quality of broadband service in Nebraska through three main aspects: average levels of service, buildout costs, and the statewide distribution of technology.

Average Number of Served Residents

Nebraska residents receive vastly different qualities of broadband service, generally bifurcated between the western half of the State and the eastern half of the State. *Figure 10* below shows the average levels of service by county with darker greens representing higher average levels, and darker pinks representing lower average levels.

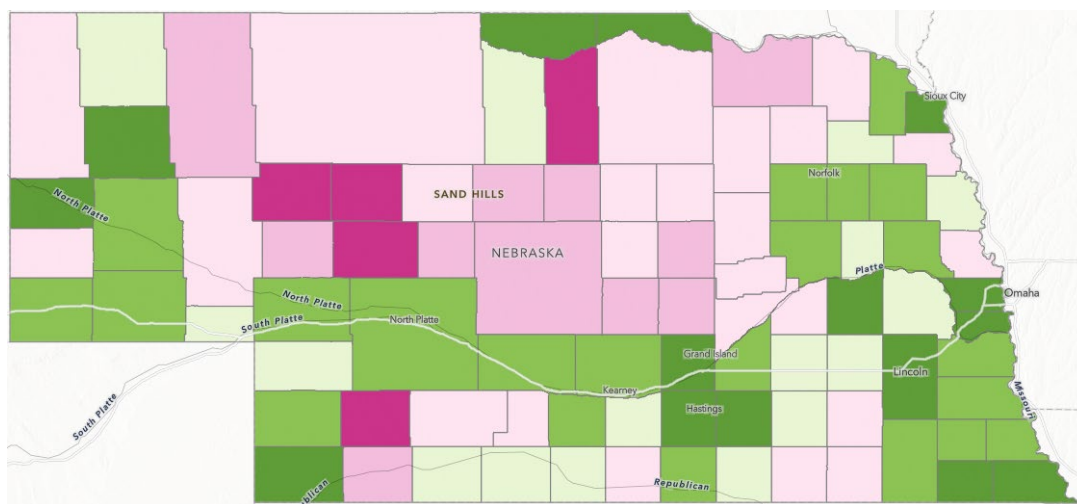


Figure 10

Figures as of **October 30, 2023** show that there are a total of **791,617 broadband serviceable locations (BSLs)** in the State with **37,166** of them being **underserved** (between 100/20 Mbps and 25/3Mbps) and **66,907** of them being **unserved** (less than 25/3 Mbps). This is demonstrated in *Figure 11* below.

However, this information is rapidly changing and will be out of date by the time NBO begins the State's NBEAD challenge process. Recently, 682,581 unserved and underserved locations nationally are now ineligible for BEAD funding due to the Federal Enhanced ACAM program. Furthermore, the Federal Communications Commission (FCC) released a new version of the National Broadband Map (Version 3.0) on 11/17/23 and initial reviews show it substantially **reduced the number of unserved Nebraska BSLs by nearly 30%, or 20,076 locations**. The FCC attributes this change to ongoing broadband buildouts and continued FCC map data challenges as a result of key stakeholder engagement in the process. This new information will make its way to the Nebraska Broadband Map.

County	Served	Underserved	Unserved	Total
Adams	13,262	119	78	13,459
Antelope	2,735	237	1,616	4,588
Arthur	132	158	10	300
Banner	340	28	163	531
Blaine	143	119	69	331
Boone	1,879	236	1,401	3,516
Box Butte	5,213	9	252	5,474
Boyd	1,831	-	1	1,832
Brown	1,796	29	463	2,288
Buffalo	16,353	1,004	1,504	18,861
Burt	3,447	175	1,017	4,639
Butler	4,786	117	323	5,226
Cass	10,399	522	1,822	12,743
Cedar	3,584	191	1,366	5,141
Chase	2,267	5	377	2,649
Cherry	2,310	498	777	3,585
Cheyenne	4,568	266	751	5,585
Clay	3,693	43	243	3,979
Colfax	3,416	515	879	4,810
Cuming	4,069	58	822	4,949
Custer	3,457	1,590	1,935	6,982
Dakota	6,643	40	669	7,352
Dawes	3,097	204	1,034	4,335
Dawson	8,969	1,188	649	10,806
Deuel	957	218	128	1,303
Dixon	2,773	23	462	3,258
Dodge	14,318	334	1,770	16,422
Douglas	181,122	1,215	1,050	183,387
Dundy	1,447	6	75	1,528
Fillmore	3,016	157	798	3,971
Franklin	1,469	83	802	2,354

Frontier	1,040	416	280	1,736
Furnas	2,521	739	212	3,472
Gage	9,148	711	1,529	11,388
Garden	831	154	669	1,654
Garfield	909	330	134	1,373
Gosper	924	530	152	1,606
Grant	47	264	86	397
Greeley	812	374	570	1,756
Hall	20,392	705	1,248	22,345
Hamilton	4,247	289	268	4,804
Harlan	2,173	328	436	2,937
Hayes	165	184	331	680
Hitchcock	703	747	739	2,189
Holt	3,840	999	2,023	6,862
Hooker	73	327	55	455
Howard	1,774	972	844	3,590
Jefferson	3,241	828	585	4,654
Johnson	2,742	15	292	3,049
Kearney	2,599	154	844	3,597
Keith	4,797	558	323	5,678
Keya Paha	717	-	53	770
Kimball	2,190	92	261	2,543
Knox	2,694	620	2,655	5,969
Lancaster	100,077	1,105	1,836	103,018
Lincoln	13,687	1,142	1,282	16,111
Logan	184	217	85	486
Loup	285	223	137	645
Madison	12,713	662	1,006	14,381
McPherson	51	91	177	319
Merrick	2,934	719	715	4,368
Morrill	2,570	33	434	3,037
Nance	1,274	54	986	2,314
Nemaha	3,544	94	607	4,245

Nuckolls	2,273	126	825	3,224
Otoe	7,181	80	778	8,039
Pawnee	1,956	33	181	2,170
Perkins	1,360	49	407	1,816
Phelps	3,924	641	144	4,709
Pierce	2,925	346	930	4,201
Platte	12,006	367	2,057	14,430
Polk	2,149	177	1,078	3,404
Red Willow	4,397	701	700	5,798
Richardson	5,023	26	330	5,379
Rock	69	1,134	4	1,207
Saline	4,665	576	1,464	6,705
Sarpy	60,288	855	740	61,883
Saunders	8,666	600	2,077	11,343
Scotts Bluff	16,782	6	88	16,876
Seward	6,372	537	1,417	8,326
Sheridan	1,654	480	1,336	3,470
Sherman	1,117	491	954	2,562
Sioux	667	22	433	1,122
Stanton	2,549	16	447	3,012
Thayer	2,528	235	1,004	3,767
Thomas	262	166	70	498
Thurston	1,396	1,143	122	2,661
Valley	1,523	499	743	2,765
Washington	5,489	2,927	341	8,757
Wayne	3,106	197	698	4,001
Webster	2,109	18	428	2,555
Wheeler	400	103	265	768
York	5,319	552	1,686	7,557
TOTAL	687,544	37,166	66,907	791,617

Figure 11

Buildout Cost

There is a reason why there is such a divide between the west and the east – the cost of buildout is vastly different. Consider Logan County, covering 571 square miles with only 13 unserved or underserved broadband serviceable locations (BSLs), at an average estimated cost to establish broadband service of \$46,107 per location. In contrast, Sarpy County, spanning 247 square miles, has 1,318 BSLs at an estimated cost of \$1,640 per location. The obvious and significant cost difference makes it more economical for providers to buildout a county such as Sarpy rather than Logan, which has led to this digital divide in the state. These high-cost geographic areas may discourage prospective subgrantees from applying for grants in these areas, as an applicant would be required to contribute greater than \$12,500 per location passed to a project to meet the required program match of 25%.

Figure 12 below shows an estimated average cost of each individual location along with how many locations are present in the county.

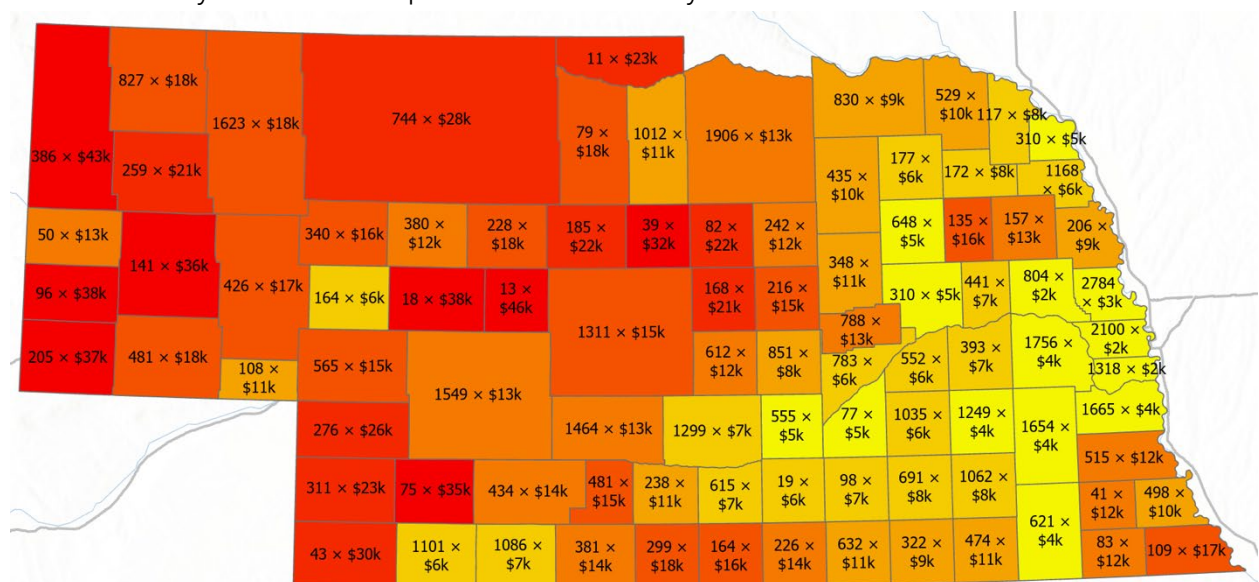


Figure 12

Technology Summary

One factor contributing to service discrepancies is the type of technology available. Many, if not most, locations in Nebraska have the opportunity to subscribe to one of many different types of technologies, and as such there is some overlap in the data. However, for some there are few options. Figure 13 below shows the breakout by county for the four main types of technology used to deliver broadband service. The following is a definition for each of the four main types of technology:

Fiber

Fiber-optic internet, otherwise known as “fiber,” is an extremely fast broadband connection that can reach speeds of up to 10 Gbps. This technology uses glass cables that can send data at a rate that is 70% the speed of light and is resilient to severe weather conditions when compared to other types of technology. Rather than using electricity to transfer data like other technologies, fiber utilizes light to transmit information along tiny fibers that are only about 125 microns in diameter (roughly the size of a human hair), which are bundled together into cables. Fiber is widely considered to be the fastest and most reliable technology commonly available.

Fixed Wireless

Fixed Wireless internet uses radio waves sent by a cell tower to a subscriber’s house through an exterior antenna. This requires the construction of a cell tower in the vicinity of the subscriber (typically within 5 miles), relatively no geographic obstructions, and a fiber line to be run to the cell tower itself. Fixed Wireless is a great solution for locations (such as rural ones) that cannot otherwise be served through physical cables as it operates on radio waves. However, due to the nature of radio waves, subscribers can experience variable speeds and latency issues, especially during times of turbulent weather conditions.

Digital Subscriber Line (DSL)

DSL is a type of technology that transmit digital data of telephone lines. The most common form of this is an asymmetric digital subscriber line for internet access. Telephone lines can handle both internet access and phone calls, so this technology is different from dial-up and typically faster. Because the information is transmitted via copper telephone wires, this technology is also colloquially referred to as “copper.”

Cable

Cable internet uses the same type of line that a TV service uses, which is called a “coaxial cable.” In this case, a coaxial wire runs from the modem located at the ISP to the modem located within the house of the subscriber. Typically, this is bundled with TV channels and the service is usually provided by a local cable TV service provider.

County	Fiber	Fixed Wireless	DSL	Cable
Adams	10,734	13,299	11,618	10,840
Antelope	2,488	3,103	2,577	1,693
Arthur	132	159	161	-
Banner	-	387	184	-
Blaine	143	54	188	-
Boone	353	1,850	2,673	1,649
Box Butte	5,089	4,312	3,368	3,740
Boyd	1,832	1,142	13	-

Brown	1,796	1,827	1,256	1,414
Buffalo	6,052	16,987	13,043	15,395
Burt	1,749	4,037	2,025	2,055
Butler	1,570	4,493	3,256	1,707
Cass	6,115	11,979	11,344	5,032
Cedar	2,325	4,596	2,374	1,260
Chase	1,825	2,247	1,868	1,173
Cherry	2,311	2,957	2,338	-
Cheyenne	708	4,020	4,415	3,355
Clay	1,879	3,619	3,191	1,464
Colfax	575	4,369	3,067	2,145
Cuming	2,202	3,859	3,768	2,981
Custer	2,745	4,859	5,370	1,818
Dakota	4,223	6,994	4,378	5,915
Dawes	1,086	417	3,047	2,028
Dawson	6,974	9,441	6,226	7,999
Deuel	5	1,250	828	216
Dixon	1,675	1,880	1,311	1,108
Dodge	13,106	15,267	13,038	11,698
Douglas	101,877	178,331	106,835	176,533
Dundy	1,443	252	67	-
Fillmore	1,999	2,700	3,045	1,806
Franklin	1,217	1,469	1,115	852
Frontier	1,040	853	557	-
Furnas	2,071	2,999	1,816	-
Gage	5,764	10,384	9,245	6,791
Garden	19	281	1,017	601
Garfield	909	809	1,158	-
Gosper	481	1,422	735	823
Grant	47	34	346	-
Greeley	210	991	1,286	619
Hall	9,483	21,717	17,414	19,397
Hamilton	4,085	4,035	2,360	352
Harlan	2,170	2,661	1,396	725
Hayes	65	245	553	-
Hitchcock	111	1,271	2,008	-
Holt	4,062	4,861	3,748	2,743
Hooker	73	311	370	-
Howard	569	3,025	2,701	1,205

Jefferson	2,437	4,326	3,381	2,377
Johnson	776	2,937	1,967	1,381
Kearney	1,938	2,859	1,969	2,199
Keith	4,141	5,127	3,069	3,132
Keya Paha	720	156	-	-
Kimball	57	2,338	2,040	1,475
Knox	2,002	4,745	5,077	694
Lancaster	92,974	101,959	97,884	93,874
Lincoln	12,740	13,906	11,542	11,239
Logan	184	396	267	-
Loup	285	2	428	-
Madison	10,967	13,735	11,630	11,946
McPherson	51	63	189	-
Merrick	2,223	3,539	2,705	2,143
Morrill	874	2,586	1,668	1,537
Nance	96	1,828	1,403	1,183
Nemaha	1,837	4,139	3,090	1,900
Nuckolls	1,659	2,218	2,132	-
Otoe	3,614	7,639	6,421	4,268
Pawnee	111	2,041	1,524	821
Perkins	240	1,478	1,507	636
Phelps	892	4,470	3,332	3,310
Pierce	1,325	3,608	2,658	1,510
Platte	10,748	13,177	8,244	10,889
Polk	1,199	1,918	2,223	1,636
Red Willow	2,579	4,006	4,348	3,800
Richardson	4,151	4,844	803	2,818
Rock	69	689	1,147	-
Saline	3,205	5,137	5,414	3,377
Sarpy	16,379	60,638	45,119	55,827
Saunders	4,867	9,490	7,495	4,007
Scotts Bluff	10,604	16,798	12,472	12,931
Seward	3,636	6,891	5,853	2,830
Sheridan	1,265	2,338	2,879	394
Sherman	285	1,294	1,273	864
Sioux	95	726	287	249
Stanton	1,410	2,860	1,028	872
Thayer	1,759	3,080	2,598	843
Thomas	262	104	221	-

Thurston	50	2,456	2,075	633
Valley	271	1,876	1,864	1,248
Washington	5,489	8,080	4,721	-
Wayne	2,642	3,440	2,513	2,399
Webster	1,939	1,511	558	688
Wheeler	400	95	366	-
York	3,892	6,598	4,854	3,512

Figure 13

Strategic Plan Updates

3. (iii) Provide any updates to the strategic plan

The Nebraska Broadband Strategic Plan was developed in the past year as a result of regular engagement with stakeholders and industry leaders from a diverse set of backgrounds. Meetings took place between February and July both in-person and virtually. As a living document, the plan will continue to be updated as feedback is received, programs are developed, and technology is improved. NBO understands that any plans implemented now need to be created with the future decades in mind. A copy of the current Nebraska Broadband Strategic Plan can be viewed in [Appendix A](#) of this report.

Nebraska Broadband Office's Outreach

4. (iv) Summarize the Nebraska Broadband Office's outreach efforts and collaboration with all interested stakeholders;

Nebraska requested and received federal Broadband Equity, Access, and Deployment (BEAD) funding in late 2022. A requirement of that funding was that NBO would open a 30-day comment period on both volumes of the BEAD Initial Proposal prior to submission of the documents. NBO successfully completed these efforts at the time of this report's submission and went above and beyond in its efforts to ensure the public had ample time and opportunity to provide feedback on these proposals. NBO held 17 outreach sessions at 16 different locations across the state, from Omaha to Scottsbluff, and McCook to Valentine in less than two months. NBO also connected with thousands of individuals representing several dozen organizations in order to inform its goals and plans.

Efforts were undertaken by the Office of the Chief Information Officer (OCIO) and PSC to promote their programs as well, and OCIO's efforts to promote the Nebraska Digital Equity Program will be covered in detail later in this report. Furthermore, NBO was also able to connect one-on-one with constituents and assist them with getting high quality service by working with partners in the provider community, even before any grants were distributed. *Figure 14* below summarizes the efforts of NBO to engage with stakeholders from the signing of LB683 to 10/30/23 of the report year.

Engagement Title/Description	Engagement Date	Engagement Location	Engaged
Broadband and Digital Equity Outreach Session	6/8/2023	Kearney Public Library, Kearney	7
Nebraska Association of County Officials Broadband Session	6/8/2023	Younes Conference Center North, Kearney	20
Broadband and Digital Equity Outreach Session	6/13/2023	Harvest Christian Fellowship, North Platte	5
Broadband and Digital Equity Outreach Session	6/14/2023	Public Safety Center, McCook	5
Nebraska Broadband Stakeholders Meeting	6/15/2023	Nebraska Department of Transportation, Lincoln	30
Broadband and Digital Equity Outreach Session	6/21/2023	Broken Bow Public Library, Broken Bow	8
Rural Broadband Task Force	6/23/2023	Varner Hall, Univeristy of Nebraska, Lincoln	12
Broadband and Digital Equity Outreach Session	6/29/2023	Marriott Riverfront, South Sioux City	12
Nebraska Broadband Stakeholders Meeting	7/6/2023	Nebraska Department of Transportation, Lincoln	30
Broadband and Digital Equity Outreach Session Lincoln	7/11/2023	Nebraska Department of Transportation, 1500 Nebraska PKWY, Lincoln	17
Broadband and Digital Equity Outreach Session Omaha	7/12/2023	Nebraska Department of Transportation, 4425 S 108th St, Omaha	23
Nebraska Information Technology Commission	7/14/2023	Varner Hall, Univeristy of Nebraska, Lincoln	12
Central Plains Library System Meeting	7/14/2023	Cozad, Nebraska	34
Counsel to the Committee	7/24/2023	NE State Capitol	1
Telecom staff NE PSC	7/25/2023	NE PSC	3
Qualcom	7/27/2023	Virtual	6
Commissioner	7/28/2023	NE OBB Offices	3
ACA Conference	7/31/2023	Minneapolis, MN	100
State Digital Equity Planning Workshop	8/8/2023	Younes Conference Center South, Kearney	65
Digital Equity Workshop	8/8/2023	Kearney	60
Governor's Ag and Economic Development Summit	8/9/2023	Younes Conference Center North, Kearney	100

Governor's Economic Development Summit (Small Group)	8/9/2023	Kearney	45
Lumen	8/10/2023	Lincoln	3
Great Plains Communications	8/11/2023	Lincoln	2
Starlink Solutions	8/16/2023	Indianapolis, IN	2
Nebraska Telecom Association	8/21/2023	Virtual	18
Windstream	8/22/2023	Lincoln	6
Cox Communications	8/22/2023	Lincoln	3
US Cellular	8/23/2023	Virtual	5
Former State Senator Jim Smith, Commissioner Schram	8/23/2023	Lincoln	2
Disability Rights Nebraska	8/23/2023	Lincoln	2
HDR Associates	8/24/2023	Omaha	4
Rembolt Ludtke & Associates	8/24/2023	Lincoln	4
Frontier Communications	8/25/2023	Phone	2
NE Department of Labor	8/28/2023	Lincoln	3
NE Farm Bureau	8/28/2023	Lincoln	4
State Senator Moser (Committee Chair)	8/29/2023	Columbus	1
ACP Outreach Session South Omaha (Commissioner Mirch)	8/30/2023	South Omaha Public Library, Omaha	20
Reconnect	8/30/2023	Virtual	1
State Senator Hughes	8/30/2023	Lincoln	4
ACP Outreach Session North Omaha (Commissioner Mirch)	8/31/2023	Charles B. Washington Branch, Omaha Public Library, Omaha	25
AARP Nebraska Tele Town Hall on Broadband and Digital Equity	8/31/2023	Virtual	2,009
NE AARP	8/31/2023	Lincoln	2200
Nebraska Strategies	8/31/2023	Lincoln	3
Commissioner Mirch	8/31/2023	Omaha	30
Mike Hybl	9/7/2023	Lincoln	2
NE Association of Community Colleges	9/7/2023	Lincoln	1
Senator Bostelman	9/11/2023	Lincoln	1
Opportunity for Public Comment Vol. 1	9/25/2023	Omaha	8
UNMC Davis Global Center	9/25/2023	Omaha	10

Opportunity for Public Comment Vol. 1	9/26/2023	Norfolk	17
Opportunity for Public Comment Vol. 1	9/27/2023	Grand Island	20
Opportunity for Public Comment Vol. 1	9/28/2023	Lincoln	14
League of Nebraska Cities	9/29/2023	Lincoln	12
Senator DeBoer, Committee Member	9/29/2023	Lincoln	2
Vista Beam Communications	10/2/2023	Lincoln	2
Opportunity for Public Comment Vol. 1	10/3/2023	Valentine	4
Vista Beam Communications	10/4/2023	Gering	6
Opportunity for Public Comment Vol. 1	10/4/2023	Gering	30
Opportunity for Public Comment Vol. 1	10/6/2023	Virtual (LONM)	25
Allo Communications	10/6/2023	Lincoln	1
Opportunity for Public Comment Vol. 1	10/6/2023	Virtual (NACO)	15
Opportunity for Public Comment Vol. 1	10/9/2023	North Platte	16
Opportunity for Public Comment Vol. 1	10/10/2023	McCook	6
OPPD	10/11/2023	Lincoln	1
Opportunity for Public Comment Vol. 1	10/12/2023	Virtual (Providers)	9
Tetrad	10/12/2023	Omaha	3
NE AARP	10/13/2023	Virtual	4
NE BB Task Force	10/13/2023	Lincoln	16
Opportunity for Public Comment Vol. 1	10/13/2023	Virtual (non-profits)	11

Figure 14

Nebraska Digital Equity

5. (v) Provide an update on efforts to promote digital equity and inclusion on behalf of Nebraska residents;

OCIO has worked to prepare Nebraska’s Digital Opportunity Plan under Anne Byer’s leadership as Digital Equity Manager. Nebraska’s Digital Opportunities Plan was developed with funding from NTIA State Digital Equity Planning Grant. States which complete plans and have them approved by NTIA will be eligible to apply for funding from the State Digital Equity Capacity Grant Program to implement their plans and set up a state digital opportunities grant program. Nebraska’s Digital Opportunities Plan focuses on eight covered populations, which are represented via percentages of total population in *Figure 15*:

- Rural residents
- People 60 years or older
- Members of racial or ethnic minorities
- Members of low-income households
- Individuals with language barriers
- Individuals with a disability
- Veterans
- Incarcerated individuals

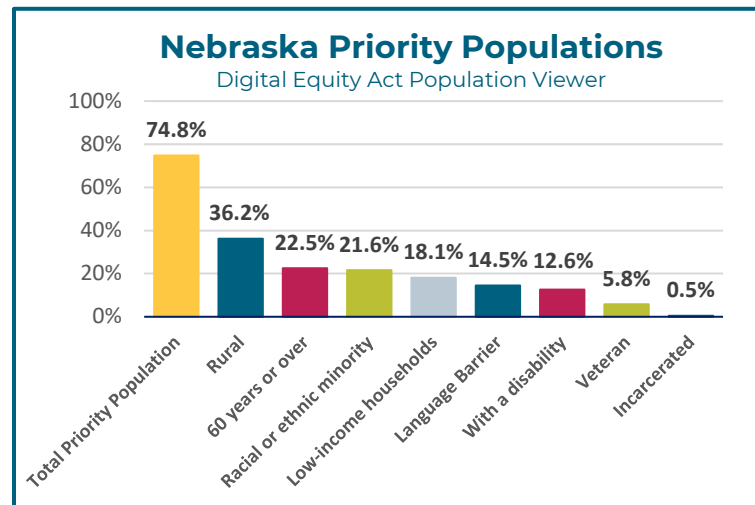


Figure 15

As a part of the Digital Opportunities Plan, Ms. Byers conducted a needs assessment and engaged in extensive public collaboration to gather more information on the status of digital equity and inclusion on behalf of Nebraska residents. The results of her efforts are detailed in the next two sections.

Digital Equity Public Collaboration

In cooperation with the BEAD Program, 26 outreach sessions were held across Nebraska, engaging 309 participants. A map of the outreach sessions and 4 tribal consultations is shown in *Figure 16* below.

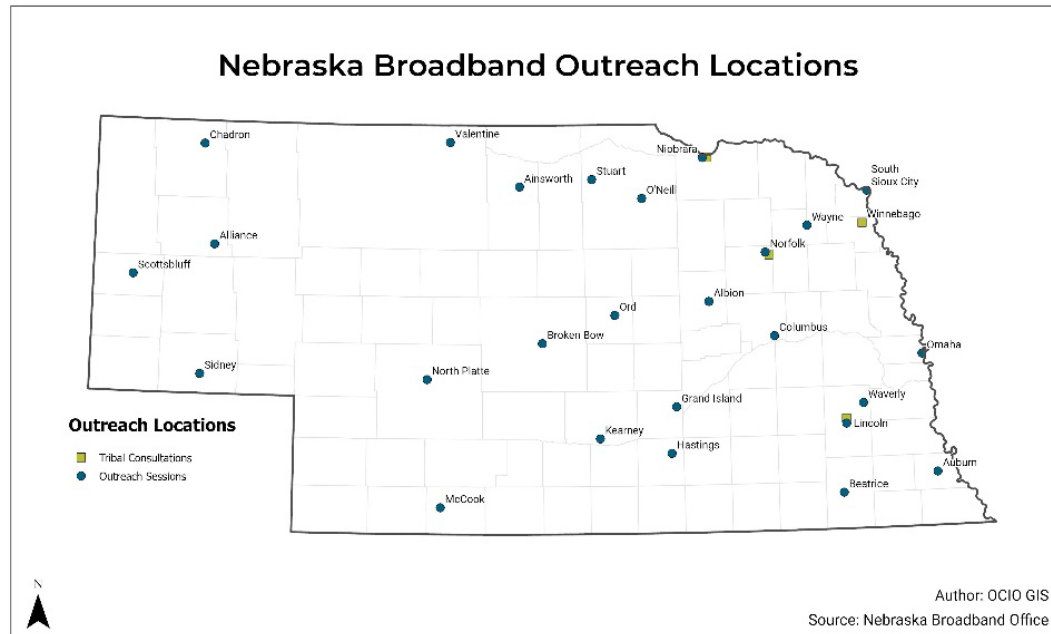


Figure 16

Figure 17 outlines the Digital Equity Outreach Sessions, including the date and number of attendees.

Location	Date	Attendees
Grand Island, Nebraska Extension Hall County	4/19/23	17
Niobrara, Niobrara Village Fire Hall	4/26/23	12
Norfolk, Norfolk Public Library	4/26/23	9
Valentine, Mid Plains Community College	5/1/23	9
Ainsworth, the Connection	5/2/23	12
Stuart, Stuart Auditorium	5/2/23	11
O'Neill, Evergreen Assisted Living	5/3/23	28
Columbus, Central Community College	5/3/23	4
Sidney, Cheyenne County Community Center	5/8/23	7
Scottsbluff, Guadalupe Center	5/9/23	13
Chadron, Chadron State College	5/9/23	13
Alliance, Knight Museum	5/10/23	6
Ord, Ord Learning Center	5/11/23	15
Albion, Cornerstone Bank	5/15/23	13
Auburn, Auburn Council Chambers	5/16/23	19
Wayne, Community Activity Center	5/17/23	13
Hastings, Hastings Public Library	5/27/23	12
Beatrice, Southeast Community College	5/30/23	10
Waverly, Waverly Community Foundation Community Center	5/31/23	9
Kearney, Kearney Public Library	6/8/23	7

North Platte, Harvest Christian Fellowship	6/13/23	5
McCook, Public Safety Center	6/14/23	5
Broken Bow, Broken Bow Public Library	6/21/23	8
South Sioux City, Marriott Riverfront	6/29/23	12
Session Lincoln, NDOT Auditorium	7/11/23	17
Omaha, NDOT State Operations Center	7/12/23	23
Total Attendees		309

Figure 17

Tribal Consultations

In addition, consultations were held with each of Nebraska’s four federally recognized Native American Tribes. These were initiated by PSC (in coordination with OCIO and NBO) distributing letters to the Tribes. The dates and locations of the consultations are shown below.

- March 24, 2023 @ 1:00 Ponca Tribe of Nebraska, Ponca Tribal Transit Facility, Norfolk
- March 31, 2023 @ 10:00 Winnebago Tribe of Nebraska, Tribal Council Chambers, Winnebago
- April 11, 2023 @ 1:00 Santee Sioux Nation, Tribal Council Headquarters and Museum, Niobrara
- April 21, 2023 @ 10:00 Omaha Tribe of Nebraska, Atrium 7th floor, Lincoln

An example of one of the letter can be found in [Appendix B](#).

Other Engagements

In addition to public listening sessions and tribal consultations, Ms. Byers also held many other meetings geared towards other facets of digital equity and inclusion. These events are detailed below.

State Planning Workshop

Sixty-five representatives of regional digital opportunities committees and key stakeholders attended the State Digital Opportunities Workshop on August 8, 2023, in Kearney. NBO Director Patrick Haggerty welcomed participants and gave an update on BEAD and the Broadband Office. A panel of representatives from digital planning committees shared information from regional plans. Small group discussions focused on addressing broadband subscription and



Vicki Quaites-Ferris shares information at the State Digital Opportunities Planning Workshop. Photo by Clint Mangan.

affordability, digital skills, digital devices, privacy and security and accessibility of online resources. A second round of small group discussions focused on the needs of covered populations.

Focus Groups

The UNO Center for Public Affairs Research and the Department of Gerontology conducted four focus groups of covered populations. A total of 60 individuals participated in the focus groups which were held at the Ainsworth Community Center in Ainsworth, Centro Hispano in Columbus, Do Space in Omaha, and the Intercultural Senior Center in Omaha. *Figure 18* shows the locations and number of Participants.

Number of Participants at each Focus Group Location and Counties of Residence

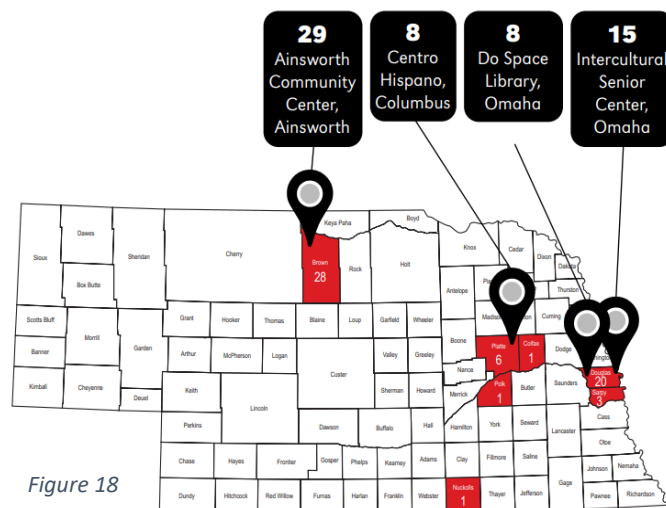


Figure 18

Library Outreach and Engagement

The Nebraska Library Commission has engaged libraries throughout the planning process. Data from the Public Library Survey was used to provide information for the state asset map. A supplemental survey of libraries about their digital opportunities programming and needs provided additional information and helped Library Commission staff to develop strategies to better meet the needs of libraries. Staff traveled to regional library system meetings to give updates on the grant and to meet with library directors. Staff have also reached out to all libraries without fiber connections to encourage them to utilize the E-Rate Special Construction Matching Program.

Needs Assessment

Impact on Communities

Broadband availability and affordability were the two issues most frequently identified by participants in listening sessions across Nebraska. Over 200 of the participants at the listening sessions answered a feedback form identifying what barriers most affect their community when concerned with Broadband. *Figure 19* below shows a summary of the responses received.

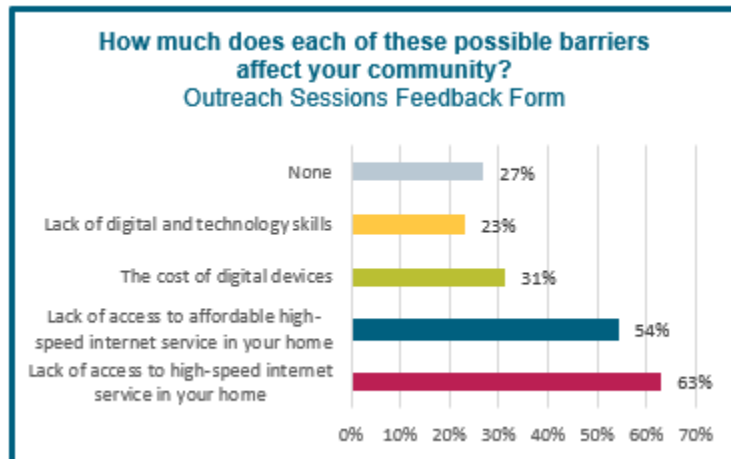


Figure 19

Covered Population with Internet Access

About 91% of Nebraskans have internet access at home. However, covered populations have lower broadband subscription rates. Older adults, those with less than a high school education, those with low incomes, and those who do not speak English are the demographic groups least likely to have internet access at home. *Figure 20* below illustrates this data.

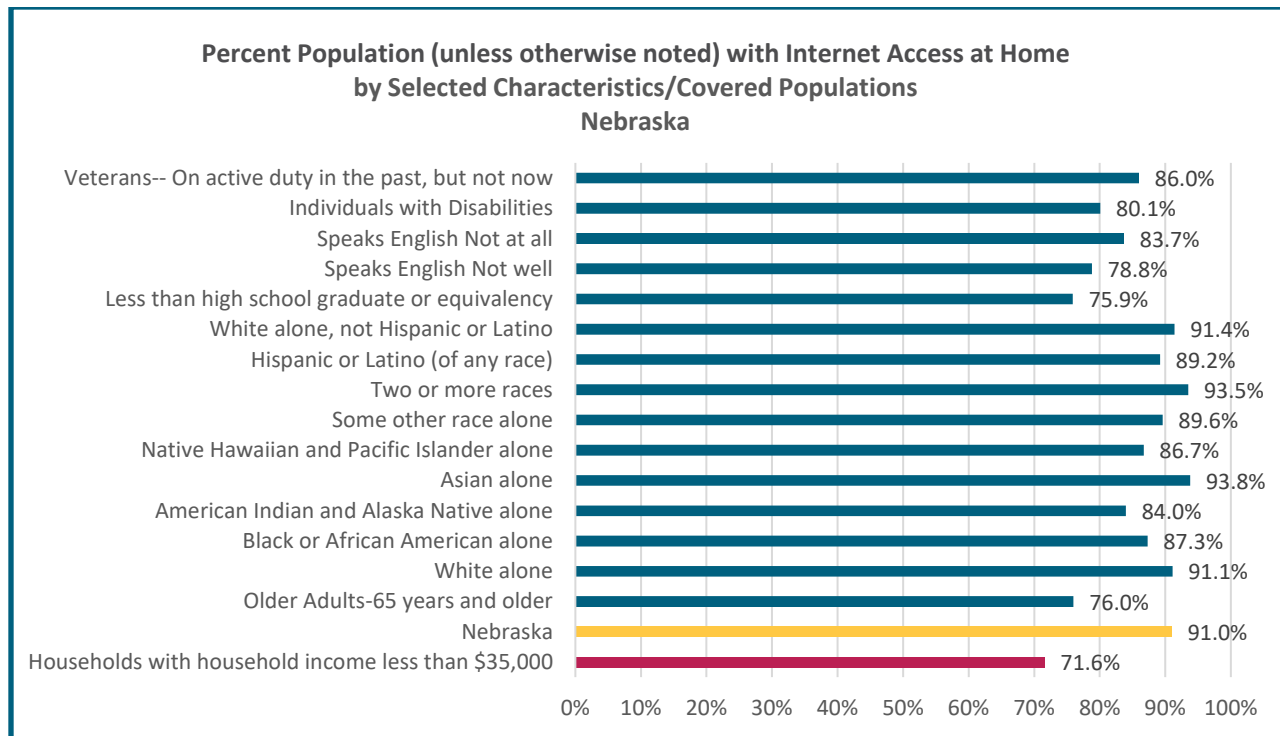


Figure 20

Covered Population Needs and Barriers

For the covered populations in Nebraska, there are some defined needs and barriers. Figure 21 below identifies these items.

Needs	Barriers
Broadband Availability-Fixed	Lack of Business Case. Fixed broadband is unavailable in some rural areas of the state due to a lack of business case to deploy broadband. Small, rural carriers are more willing to look at a return on investment over a longer period of time.
Broadband Availability-Mobile	Lack of Business Case. Mobile broadband is unavailable in some rural areas of the state due to a lack of business case to buildout in some rural areas. Limited Grant Funding/Support for Mobile Buildout. BEAD, Capital Projects, and Nebraska Broadband Bridge funding is focused on fixed broadband deployment. The FCC has established the 5G Fund for Rural America, but it is still in the rule making process. The Nebraska PSC funds some mobile tower buildouts, but the amount of the fund is not large.

<p>Broadband Availability for Agriculture</p>	<p>Limited Grant Funding/Support for Wireless Broadband over Farms and Ranches. BEAD, Capital Projects, and Nebraska Broadband Bridge funding is focused on fixed broadband deployment. The FCC has established the 5G Fund for Rural America, but it is still in the rule making process. The Nebraska PSC funds some mobile tower buildouts, but the amount of the fund is not large. Getting coverage over farms and ranches may require building private wireless networks.</p>
<p>Broadband Access in Public Places</p>	<p>Availability of Broadband at Rural Libraries, Senior Centers and Other Facilities. Not all libraries and senior centers have broadband available.</p> <ul style="list-style-type: none"> • 35% of Nebraska libraries serving communities with populations of less than 2,500 have internet access below 25 Mbps down and 3 Mbps up. • Approximately one-third of multi-purpose senior centers do not provide Wi-Fi for public access. <p>Availability of and Distance to Libraries, Senior Centers, and other Facilities. Not every small community in Nebraska has a library, senior center, or community center. One-third of the Central Nebraska Economic Development District’s 61 communities do not have a library, community center. Members of covered populations in larger communities may still face barriers to going to libraries, senior centers, and other facilities, due to mobility issues, lack of transportation, or working during the hours these facilities are open.</p>
<p>Broadband Affordability</p>	<p>Broadband Affordability. The affordability of broadband service was the number one barrier identified in outreach sessions.</p> <p>Higher Costs in Rural Areas. Residents of rural areas often pay more for internet service because there are fewer providers and the technologies available such as satellite or fixed wireless tend to be more expensive than wired services.</p> <p>Affordability is relative. Some rural residents do not see the value of broadband and, therefore, perceive that it is too expensive.</p> <p>Unawareness of ACP and Other Discount Programs. Many low-income rural residents are not aware of the Affordable Connectivity Program and other programs such as Lifeline.</p>

	<p>Distrust of Internet Providers and Government Programs. Some individuals with disabilities and low incomes may not trust government programs or internet providers. This may limit ACP participation.</p> <p>Stigma of Participating in Government Programs. Some individuals with disabilities and low incomes may feel that there is stigma associated with participating in government programs. This may limit ACP participation.</p>
<p>Access to Digital Devices</p>	<p>Status Quo. Socio-demographic characteristics of rural residents make them less likely to embrace technology, and computers in particular. As an example, older adults in rural Nebraska may not think that they need a smartphone because their friends don't have smartphones.</p> <p>Affordability of Devices. Individuals may not be able to afford new devices or to repair older devices.</p> <p>Affordability of Assistive Technology. Assistive technology can make digital devices more accessible for individuals with disabilities.</p> <p>Accessibility of Devices. Some individuals may need additional assistive technology to utilize digital devices.</p>
<p>Access to Devices at Public Places</p>	<p>Availability of and Distance to Libraries, Senior Centers, and other Facilities. Not every small community in Nebraska has a library, senior center, or community center. One-third of the Central Nebraska Economic Development District's 61 communities do not have a library, community center. Members of covered populations in larger communities may still face barriers to going to libraries, senior centers, and other facilities, due to mobility issues, lack of transportation, or working during the hours these facilities are open.</p> <p>Availability of Newer Devices at Libraries, Senior Centers, and Other Facilities.</p> <ul style="list-style-type: none"> • Most libraries have devices, but devices may be older especially in small, rural libraries. • Only 30% of multi-purpose senior centers have devices for seniors to use.
<p>Access to Retail Device Locations</p>	<p>Availability of Retail Locations and Distance to Retail Locations. Rural residents can be an hour or more away from a retail store selling or repairing devices. Members of covered populations in larger communities may still face barriers to going to retail facilities due to</p>

	<p>mobility issues, lack of transportation, or working during the hours these facilities are open.</p>
<p>Access to Device Repair Services</p>	<p>Availability of Device Repair Services. Rural residents can be an hour or more away from device repair services. Members of covered populations in larger communities may still face barriers to getting to device repair services due to mobility issues, lack of transportation, or working during the hours these facilities are open.</p>
<p>Digital Skills</p>	<p>Individual Barriers and Challenges. For individuals with disabilities, the use of assistive and digital technologies is unique to the individual. Other covered populations may also face individual barriers and challenges.</p> <p>Lack of Awareness of Resources. At outreach sessions, participants were often unfamiliar with available digital skills classes and opportunities.</p> <p>Access to Culturally Appropriate Classes and Assistance. Individuals learn best in an environment in which they are comfortable.</p> <p>Individuals and organizations providing services to individuals with disabilities need to better learn to use assistive technology. For example, staff at medical facilities need to learn how to use digital relay equipment.</p> <p>Need to Know How to Use Technology to Access Online Resources. If individuals lack technology skills, it may be difficult for them to utilize online courses and resources.</p> <p>Requires More than One Touch. Technology skill development isn't a one-time event, it requires lifelong learning.</p>
<p>Knowledge and Use of Privacy and Security Practices</p>	<p>Few Places to Learn about Privacy and Security Outside Work. Several participants at outreach sessions commented that they learned their technology skills and privacy and security practices from work. Outside of the workplace, there aren't many places to learn about privacy and security. Individuals with jobs that do not include using digital technologies may not receive security training. Employees working at small businesses are also less likely to receive security training.</p> <p>Requires More than One Touch. Learning privacy and security practices isn't a one-time event, it requires lifelong learning.</p> <p>Lack of Mobile Devices and Consistent Phone Number. The use of two-factor authentication is becoming more prevalent. Individuals who do not</p>

	have a consistent mobile phone number and device may have a difficult time using two-factor authentication.
Accessibility of Online Resources	<p>Lack of Awareness. Some rural residents may not be aware of online resources.</p> <p>Difficult Navigation/Processes. Some online resources are not easy to navigate, especially for those with disabilities or language barriers.</p>

Figure 21

Broadband Affordability

Affordability of monthly broadband costs is a major barrier to increased broadband adoption in Nebraska. Just over one-half of the respondents to the Nebraska Digital Access and Skills Survey pay between \$40 and \$80 per month for their internet service, excluding the costs of any other services in their bundle. Thirteen percent pay \$100 or more. 41% reported that it is difficult to fit their monthly internet bill into their household’s budget.

Need to Increase Affordable Connectivity Program (ACP) Enrollment. ACP is a key component of Nebraska’s strategy for addressing broadband affordability. Nebraska’s enrollment rate of 31% is below the U.S. rate of 39% as of August 2023. Barriers to increasing ACP enrollment include:

- Lack of awareness of the program
- Distrust of internet providers and government programs
- Difficulty or perceived difficulty of enrolling
- Perceived stigma of participating in assistance programs

Building social capital and working with trusted community partners can help address these barriers.

Need for Continued Funding for ACP. Funding for ACP is expected to be exhausted in April 2024 unless Congress reappropriates funding for the program.

Need for Greater Broadband Deployment. Broadband deployment funded through BEAD and other funding programs will bring additional internet options to many areas that may be more affordable than satellite or unlicensed fix wireless internet services. Additionally, several fiber providers are overbuilding in many Nebraska communities including the Omaha area. The additional competition may result in lower rates in some communities.

Need to Improve the Capacity of Libraries, Senior Centers, and Other Organizations. These organizations are key community partners in providing internet and computer access to students and the public as well as assistance with technology. However, some of these facilities do not currently offer high-speed broadband connectivity to the public:

- 35% of Nebraska libraries do not have fiber connectivity.
- Approximately one-third of Nebraska senior centers do not provide Wi-Fi for public use.

Limited staff time, inadequate broadband service, outdated networking, and access to technical support are barriers that limit the ability of small libraries, senior centers, and community centers to participate in digital inclusion activities.

Next Steps

The Digital Equity program administered by OCIO will continue to develop heading into Spring 2024. A final copy of the Digital Equity plan will be submitted to NTIA and approved. Then, the State can apply for a Digital Equity Capacity Grant to implement the NTIA approved Digital Equity Plan. As such, there is still more for this program to develop in its goal of bridging the digital divide.

Federal Broadband Advocacy

6. *(vi) Provide an update on state advocacy on broadband issues being conducted at the federal level.*

In the five months that the Broadband Office has been operational in the report year, Director Haggerty has engaged in substantive federal advocacy to ensure Nebraska is properly represented at the table concerning broadband policy development. There are two key areas in which this has taken place, the Linking Access to Spur Technology for Agriculture Connectivity in Rural Environments (LAST ACRE) Act authored by U.S. Senator Deb Fischer, and the BEAD Program's development.

The LAST ACRE Act was introduced by Senator Fischer and Senator Ben Ray Lujan in late July 2023. The legislation would create a new Last Acre Program at the U.S. Department of Agriculture's (USDA) Office of Rural Development aiming to expand network connectivity across farmland and ranchland. This is a poignant issue for Nebraska with its large amount of agricultural land and defined need for more support for precision ag technologies. Existing rural broadband development programs support "last mile" broadband deployment, such as the BEAD program, but the USDA currently lacks a program focused on extending connectivity across rural acreage, reaching the "last acre." As such, NBO supports Senator Fischer's efforts to introduce such a program

Concerning BEAD, Director Haggerty has attended several conferences in his time as Nebraska State Broadband Director. He represented Nebraska as one of five states invited to speak at the Society of Cable Telecommunications Engineers Annual Conference. He also was one of three states invited to speak at the Rural Broadband Association Annual Conference. As such, even though Nebraska is a relatively small state when looking at population, through Director Haggerty the State is projecting a very loud voice. At these conferences Nebraska's plan to disburse BEAD funds has become a focal

point and is being mirrored by other States in their BEAD plans. Furthermore, Director Haggerty attended the Broadband Leaders Network Summit organized by NTIA in Indianapolis in the early fall. There he continued to ensure that NTIA is considering the needs of Nebraskans when the agency drafts its model guidance pieces.

NBO will continue to advocate for broadband issues effecting Nebraska on the Federal level.

December 1, 2023

DRAFT 3

Nebraska Strategic Broadband Plan



Nebraska Broadband Office
1500 Nebraska Parkway | Lincoln, NE 68502

Table of Contents

Executive Summary	4
Overview	4
Problem Statement	4
Recommendations	4
<i>Goal One: Bolster economic opportunity by connecting 100% of residents, particularly those in rural communities, to high-speed Internet by 2027.</i>	5
<i>Goal Two: Expand digital inclusion and adoption to achieve affordability, access, and digital literacy by 25% by 2027.</i>	5
<i>Goal Three: Enable Nebraska to thrive by fostering and supporting a digital economy by 2027.</i>	5
<i>Goal Four: Develop robust collaboration across Nebraskan communities through strategic planning of broadband and digital equity to ensure that all unserved, underserved, and underrepresented communities are connected.</i>	5
<i>Goal Five: Ensure the long-term sustainability of deployed infrastructure necessary to preserve access by all Nebraskans to affordable and reliable communications services provided by broadband capable networks.</i>	6
Key Findings	6
Next Steps	6
Conclusion	7
Roadmap to Connect 100% by 2027 Table	7
Broadband Goals and Actions	8
Goal 1: Bolster economic opportunity by connecting every Nebraskan household and business to high-speed internet	8
Strategy 1.1	9
Strategy 1.2	9
Strategy 1.3	10
Goal 2: Expand digital inclusion and adoption to achieve affordability, access, and digital literacy	11
Strategy 2.1	11
Strategy 2.2	11
Strategy 2.3	11
Strategy 2.4	12
Strategy 2.5	12
Goal 3: Enable Nebraska to thrive by fostering and supporting a digital economy by 2027.	13

Strategy 3.1:	13
Strategy 3.2:	13
Strategy 3.3:	14
Strategy 3.4:	15
Goal 4: Develop robust collaboration across Nebraskan communities through strategic planning of broadband and digital equity to ensure that all unserved and underserved communities are connected.	15
Strategy 4.1	15
Strategy 4.2	16
Goal 5: Ensure the long-term sustainability of deployed infrastructure necessary to preserve access by all Nebraskans to affordable and reliable communications services provided by broadband capable networks.	17
Strategy 5.1	17
Strategy 5.2	17
Strategy 5.3	18
Performance and Evaluation Recommendations	19
Goal One	19
Goal Two	19
Goal Three	19
Goal Four	19
Goal Five	19
Conclusion	20

Executive Summary

Overview

Broadband enables essential activities of residents and improves society through different channels such as economic development, healthcare, public safety, government services, and education. The country will see the largest ever investment in broadband by the federal government, of over \$100 billion nationwide, with Nebraska receiving \$405 million in funding over the next 5 years through the Broadband Equity, Access, and Deployment (BEAD) Program. On January 6, 2023, Governor Jim Pillen issued Executive Order 23-02 to establish the Nebraska Broadband Office housed within the Nebraska Department of Transportation.

The purpose of the Nebraska Broadband Office is to provide for policy level direction and coordination across all levels of government to reach the goal of connecting 100% of Nebraska households to high-speed Internet by 2027. Therefore, the Nebraska Broadband Office, in coordination and consultation with impacted stakeholders across the State, developed the Nebraska Strategic Broadband Plan. Included in the Nebraska Strategic Broadband Plan are four goals geared towards addressing issues in the realms of connectivity, digital equity, digital economy, and stakeholder engagement. State and federal funding is critical to ensure the state can accomplish these goals.

Disclaimer: The Nebraska Strategic Broadband Plan is subject to changes based on internal and external stakeholder feedback that will be solicited on an ongoing basis. The execution of the strategies, goals, and metrics identified in the Plan relies on the funding timelines of the Federal Communication Commission (FCC) and National Telecommunications Information Administration (NTIA). Programs administered by these agencies are evolving and the timelines are not always known. The Nebraska Broadband Office will review the Plan and update it as new information is made available.

Problem Statement

In Nebraska, 13.26% of locations are unserved or underserved, and 105,000 households lack acceptable access to the internet. A consequence of limited access includes an unfavorable business case for investment, especially in rural areas. The primary drivers for the adoption gap are affordability, devices, and literacy. The Nebraska Strategic Broadband Plan identifies strategies that will address gaps to expand access and close the digital divide.

Recommendations

Through the American Rescue Plan Act (ARPA), Infrastructure, Investment and Jobs Act (IIJA), and E-Rate Special Construction (E-Rate), state and local governments have access to federal funding resources to bridge the digital divide. Per BEAD, Nebraska now has a mandate to connect every unserved location across the State, turning broadband deployment into a strategic imperative at a local level. Based on these opportunities, the Nebraska Strategic Broadband Plan includes recommendations to achieve specific goals. The implementation of these goals can be found in detail in the Goals and Action sections below.

Goal One: Bolster economic opportunity by connecting 100% of residents, particularly those in rural communities, to high-speed Internet by 2027.

Strategies:

1. Prioritize deployment and target funding in areas where a negative business case for private investment for the unserved and under-served exists.
2. Set an extreme high cost per location threshold for difficult to serve areas.
3. Utilize location-level mapping and analytics to assess areas of critical need and to target unserved and underserved areas.

Goal Two: Expand digital inclusion and adoption to achieve affordability, access, and digital literacy by 25% by 2027.

Strategies:

1. Conduct a landscape analysis of existing digital literacy programs and develop strategies to address any gaps.
2. Conduct digital navigator pilots within targeted populations, evaluate strategies that work and leverage public-private partnerships to build skills and confidence in the use of technology.
3. Partner with libraries across the State to provide opportunity for every library access to a fiber Internet service of 1Gbps or greater.

Goal Three: Enable Nebraska to thrive by fostering and supporting a digital economy by 2027.

Strategies:

1. Expand workforce development programs to prepare and support industry to address labor shortages that are barriers to deployment.
2. Improve delivery of government services by leveraging technology to facilitate a culture of innovation and efficiency.
3. Ensure investments in broadband leverage existing strategies and programs already in place to improve the digital economy.

Goal Four: Develop robust collaboration across Nebraskan communities through strategic planning of broadband and digital equity to ensure that all unserved, underserved, and underrepresented communities are connected.

Strategies:

1. Link the operations of infrastructure and public, private and community broadband networks to encourage collaboration and ensure economic resiliency.
2. Leverage broadband to support public safety infrastructure.

Goal Five: Ensure the long-term sustainability of deployed infrastructure necessary to preserve access by all Nebraskans to affordable and reliable communications services provided by broadband capable networks.

Strategies:

1. Encourage Federal and Nebraska policymakers to modernize the FUSF and NUSF.
2. Determine alignment of FUSF support programs (i.e., A-CAM and “Legacy” programs) with Nebraska broadband policies, including NUSF.
3. Ensure that long-term commitments are satisfied under state administered broadband deployment grant programs other than FUSF and NUSF programs.

Key Findings

The Nebraska Strategic Broadband Plan includes ten key findings: (1) build the capabilities of the broadband office, (2) set a vision and run diagnostics to align policy objectives and feasibility studies to achieve program goals, (3) build location-level mapping & analytics capabilities, (4) set deployment strategies, (5) design a competitive and nimble granting process that ensures competition, (6) execute and evaluate proposals based on robust criteria that considers viability and the efficient use of funds, (7) set up oversight functions and report on results, (8) ensure external stakeholder engagement, (9) establish strong internal project management and (10) consider additional funding for broadband to ensure the long term sustainability for these one-time capital investments. The goals, actions and key findings will ensure successful implementation of the Nebraska Strategic Broadband Plan.

Next Steps

The Nebraska Strategic Broadband Plan outlines short and long-term steps to bridge the digital divide. In the short-term, the Broadband Office needs to continue assessing office-level capabilities and baseline the current state of broadband access across Nebraska. Ongoing refinement of individual grant strategies through federal and state funding is necessary in mobilizing to execute funding. The Broadband Office in partnership with the Public Service Commission and state leadership must identify risks and conduct mitigation planning to avoid barriers to deployment and adoption.

The long-term steps include consideration of permanent funding for the sustainability of the state’s broadband infrastructure and programs. It is also important that the Broadband Office engage and coordinate with stakeholders throughout the process. Nebraska will apply for every funding opportunity offered through the US Treasury Department and NTIA. The share of funding that Nebraska will receive is \$405M over the next 5 years. The next steps are to develop a competitive grant program for BEAD that includes criteria and matching requirements for sub-recipients and update the Plan annually as broadband programs evolve.

Conclusion

The establishment of Nebraska Strategic Broadband Plan was the first step in providing clear direction with the goal of connecting 100% of households to high-speed broadband and developing plans to implement effective strategies. The historic funding available through the BEAD program will result in unprecedented opportunities to accomplish the goals of the Nebraska Strategic Broadband Plan and bridge the digital divide. The Broadband Office is uniquely positioned to successfully leverage resources where they are needed most in Nebraska. Accelerating broadband will bolster Nebraska's economy, improve resiliency, help communities thrive, and ensure that everyone has access to essential activities and services needed for a better quality of life.

Roadmap to Connect 100% by 2027 Table

The Nebraska Strategic Broadband Plan will connect 100% of Nebraskans to high-speed Internet by 2027. The following table is a projection of the percentage of residents that the Broadband Office proposes to connect through 2027. Included is the percent of funding that will be utilized per federal programs each year. The success of connecting residents to broadband by the projected date is based on variables that the Broadband Office does not influence.

Projections are subject to the following variables:

- Completion of Nebraska mapping by the FCC
- Completion of the challenge process by the FCC
- The total amount allocated by the NTIA for BEAD
- The time of funding allocations made available by the NTIA for BEAD
- Grant awards to sub-recipients to the NTIA for middle mile
- Labor and supply chain delays
- Local permitting, easement, and right-of-way delays
- Dynamics that impact the drivers of adoption
- Complete applications by sub-recipients
- State procurement and contracting process
- Completion and closeout of construction of broadband projects
- Compliance and monitoring of sub-recipients

Connectivity and Funding Utilization Percentage Table*

	2023	2024	2025	2026	2027***	Total
% of Households Connected	86.7%	89%	93%	95%	100%	100%
Federal & State Program Utilization						
E-Rate	20%	20%	20%	20%	20%	100%
Bridge**	20%	20%	20%	20%	20%	100%
CPF	50%	50%	0%	0%	0%	100%
DE	53%	47%	0%	0%	0%	100%
BEAD	0%	25%	50%	25%	0%	100%
EMM	0%	20%	40%	40%	0%	100%

*Projections are predictions and based on variables that the Broadband Office does not influence. The table is based on the draw-down of funds. The Internet gap is defined as residents who do not receive at least 100/20 mbps.

**Bridge is a state funded program administered by the Nebraska Public Service Commission, and is an ongoing program

***All federal programs are required to be executed by 2027

Broadband Goals and Actions

To accomplish the strategies identified in the Nebraska Strategic Broadband Plan, the Nebraska Broadband Office has developed a list of goals to orient any State plan or program. Since the state’s broadband program is a new initiative, revisiting and refining the implementation plan will be necessary. Incremental evaluation is included and required to benchmark success against different strategies and report regularly to elected officials on progress to ensure transparency.

Goal 1: Bolster economic opportunity by connecting every Nebraskan household and business to high-speed internet

Universal access to broadband will bring significant economic opportunities. Developing high-speed networks, however, is an expensive proposition. Network deployment should maximize the scalability of that network to minimize future investments required to meet evolving consumer needs. This concept is referred to as the deployment of a “future proof” network. The State's broadband policies give preference to symmetrical speeds of 100/20Mbps or higher. The grant program design must be nimble and competitive as Nebraska is a high-cost state and criteria will include incentives for investment in rural areas with critical need. Successful grant applicants will include both last and middle mile infrastructure and where necessary, may involve the use of alternative technologies.

Strategy 1.1

Target State grants and programs to unserved or underserved areas where private investment alone cannot sustain the investment needed to provide 100/20 Mbps broadband service.

Activities:

- Design grant programs which encourage investment by providers, grantees, and other stakeholders. Such programs shall:
 - Encourage partnerships, including public-private partnerships and network deployment projects where business risk can be shared, and existing infrastructure can be used to extend broadband service.
 - Weigh past performance of broadband service suppliers and quantify the local and statewide impacts of proposed projects.
 - Connect all unserved homes and businesses, taking into consideration state and federal regulations, the economic impact of a proposed project, and the maximization and efficient use of the limited funding resources available.
 - Utilize available public funds to connect important economic drivers in rural areas that will lead to further economic development.
- Invest in community anchor institutions (CAI) through Network Nebraska where possible to provide reliable high-speed access.
- The Nebraska Broadband Office will monitor and review the design, engineering, site prep, construction, close-out, and performance of last and middle-mile projects to ensure that investments are built on time and to design specifications per contract terms and conditions.
 - Provide updates on public facing milestones that track easily understood progress such as Grant awarded, Design completed, Materials ordered, Materials received, Construction started, etc.

Performance Metrics:

- Increase broadband access (minimum 100/20) for households and businesses to 100%
- Work with tribes to increase the number of homes and businesses on tribal lands connected to broadband speeds of 100/20 mbps.

Strategy 1.2

Maximize private funding and investment in broadband buildouts to provide broadband service of 100/20Mbps.

Activities:

- Incentivize private broadband investment through use of State and local assets such as access to State and local Right of Ways.
- Encourage regional broadband planning and promote state and local projects that will serve largely unserved areas of the state.

- Where appropriate, utilize existing infrastructure to deploy broadband infrastructure most efficiently in high-cost areas.

Performance Metrics:

- Number of households connected by independently funded broadband projects

Strategy 1.3

Utilize the best available location-level mapping and analytics to assess areas of critical need and to target areas that require subsidies.

Activities¹:

- Initiate a process to obtain inputs from all stakeholders regarding the scope of "necessary information" that is appropriate to request from broadband providers in order to create and keep current the official Nebraska location fabric broadband access map (the "State Broadband Map").
- Create a broadband projects dashboard to inform stakeholders where investments are occurring in the state.
- Provide data layers that aggregate information based on information including, but not limited to;
 - State Senator Districts
 - Counties
 - Public Service Commissioner Districts
 - Economic Development Districts
 - Congressional Districts

Performance Metrics:

- Creation of the Broadband Map
- The Broadband Office has received stakeholder inputs to determine necessary information for completion of the State Broadband Map showing broadband availability and available speed for all serviceable locations in Nebraska as required by Neb. Rev. Stat. section 86-333(1) and (2).
- The Broadband Office, with the assistance of third party contractor(s), has created the State Broadband Map.
- Practices and procedures have been developed by the Broadband Office for periodic updates of the State Broadband Map to keep it as current and accurate as possible.
- Policies and procedures have been implemented to protect the confidentiality of trade secret information provided to the Broadband Office as part of the process for creation of the State Broadband Map.

¹ Information provided to the Broadband Office pursuant to Neb. Rev. Stat. Sec. 86-333(3) for the State Broadband Map shall be subject to applicable confidentiality protections.

Goal 2: Expand digital inclusion and adoption to achieve affordability, access, and digital literacy

Connecting all Nebraskan households to high-speed internet access requires investment in digital equity. Nebraska's digital equity efforts are focusing on affordable access to service, access to internet-enabled devices, and digital literacy. The Nebraska State Digital Equity Plan will support the digital equity strategies of the Nebraska Strategic Broadband Plan and provide more detail.

Strategy 2.1

Conduct a landscape analysis of existing digital equity and affordability programs and develop strategies to address any gaps.

Activities:

- Develop a statewide Digital Equity Plan in partnership with the Office of the Chief Information Officer.

Performance Metrics:

- Completion of State Digital Equity Plan.

Strategy 2.2

Leverage E-rate special construction and ensure that connectivity to network infrastructure is available during emergencies.

Activities:

- Prioritize connectivity at CAIs such as schools, community centers, libraries, and recreation centers.

Performance Metrics:

- Number of libraries connected to high-speed internet.

Strategy 2.3

Address broadband affordability

Activities:

- Increase enrollment in the Affordable Connectivity Program and Lifeline Program by increasing awareness and decreasing barriers.
- Encourage providers currently not participating in the Affordable Connectivity Program to participate.

- Partner with broadband providers to advance digital inclusion efforts targeting low-income households such as training, device refurbishment programs or other programs included in the state digital equity plan.
- Incentivize providers to offer low-cost and affordable service options as an evaluation criterion for broadband grant funding.
- Support continued funding for the Affordable Connectivity Program.

Performance Metrics:

- Increase enrollment by 50% in the Affordable Connectivity Program and the Lifeline program by January 2025 considerate of continued funding.

Strategy 2.4

Expand digital literacy training and support throughout Nebraska.

Activities:

- Build capacity in libraries, senior centers, and other organizations to provide technical support and training by focusing on the following:
 - Increase fiber connectivity.
 - Increase technical support provided by the Nebraska Library Commission (NLC) to help libraries improve network infrastructure, install CIPA-compliant filtering, meet cybersecurity standards for public use technologies, and address the ongoing need for maintenance options.
 - Decrease barriers to providing training and classes in libraries, senior centers, and other organizations.
- Leverage partnerships to expand digital literacy training and support throughout Nebraska, including partnerships with 4-H, schools, and youth organizations.
- Expand access and awareness to digital training resources to households and through the Broadband Office, libraries, and other community anchor institutions.
- Explore funding for targeted digital literacy training programs with a focus on NTIA-defined covered populations with the Digital Equity Capacity Grant.

Metrics:

- Increase the percentage of Nebraska libraries with fiber connections by 2027
- Increase the percentage of Nebraska libraries with at least one up to date laptop or desktop computer by 2027

Strategy 2.5

Expand access to digital devices.

Activities:

- Increase awareness of device refurbishment and repair programs.
- Explore ways to establish or expand device refurbishment programs.
- Explore ways to expand access to affordable device repair services.

Performance Metrics:

- Increase the percentage of Nebraska households with at least one digital device by 2025.

Goal 3: Enable Nebraska to thrive by fostering and supporting a digital economy by 2027

The state plays an important role in supporting the digital economy. Supporting and funding programs that address labor shortages, implementing digital government strategies, removing administrative barriers, increasing efficiencies, and aligning broadband efforts with existing programs will all help foster the digital economy.

Strategy 3.1:

Encourage the utilization of broadband technology to create efficiencies for key industries and constituencies within the state.

Activities:

- Encourage cutting-edge broadband technologies to empower rural and underserved communities by providing interactive medical training, consultation, and real-time telehealth services, thereby enhancing the state's healthcare infrastructure.
- Encourage the use of broadband technologies to support precision farming and resource efficiency techniques in collaboration with agricultural machinery companies, thereby elevating Nebraska's agricultural technology landscape.
- Promote the use of broadband technologies to improve animal welfare, productivity, and promote smart farming practices through remote consultations and real-time livestock monitoring.
- Attract more manufacturing capacity to rural and underserved areas by connecting those communities to high-speed broadband through State grant programs.

Performance Metrics:

- Number of households that can access telehealth services in rural and underserved communities
- Percent increase in agricultural operations utilizing precision farming technologies and resource efficiency.

Strategy 3.2:

Grow workforce development programs to prepare and support industry to address labor shortages in targeted industries.

Activities:

- Coordinate partnerships between the Department of Economic Development, the Department of Labor, the broadband industry, and higher education to take advantage of workforce development programs and strategies to increase deployment-related roles in Nebraska, especially in outdoor and labor-intensive roles (e.g., apprenticeship, technical/vocational training, and school partnerships.)
- Encourage investment in academic curricula for key industries to meet the demands of the digital economy by fostering industry-academia collaboration for research and development and supporting apprenticeship and internship programs.
- Champion business-led initiatives and collaborations that proactively invest in the development of a skilled workforce that is capable of tackling labor shortages in the broadband industry and

- adapting to the emergence of new broadband-based technologies.
- Reach out to and partner with employers, unions, community partners, and local organizations focused on workforce development to identify existing training programs and next steps to close the workforce deficit.
- Encourage the engagement of youth early through career academies and workforce development initiatives to ensure a steady supply of skilled professionals to support the growth of the broadband industry and targeted industries.
- Consider partnering with adjacent states to develop a multi-state approach to workforce development to address gaps in deployment related roles.
- Create a landing page on the Nebraska Broadband Office’s website containing information on existing workforce development programs and resources.

Performance Metrics:

- Number of effective public-private partnerships supporting workforce development needs for the broadband industry and targeted industries.
- Number of individuals who have successfully participated in a broadband industry or an industry focused workforce development program.
- Number of job placements in the broadband sector and industry focused positions
- Percentage of students who can access and effectively utilize broadband technologies.

Strategy 3.3:

Improve delivery of government services by leveraging technology to facilitate a culture of innovation and efficiency among government agencies.

Activities:

- Develop a Broadband Community Readiness Certification program for local governments to support permitting processes and prioritize those who participate in the program.
- Optimize emergency response by utilizing broadband capabilities to improve emergency response and enhance the Next Generation 911 system for more efficient triaging and responses to emergency calls.
- Promote a culture of innovation within government agencies by promoting creative problem-solving, adopting agile methodologies, and leveraging technology to automate routine tasks.
- Agricultural Collaboration and Connectivity.
 - Encourage local agriculture producers to engage with agribusiness suppliers at all levels in discussions about area connectivity shortcomings that may be impeding use of precision agricultural technologies and collaborate to experiment with pilot connectivity projects.

Performance Metrics:

- Percent of local government units engaged through the establishment of a Broadband Community Readiness Certification program.
- Measure improvements to emergency response time in communities leveraging broadband technology to enhance its Next Generation 911 system.

Strategy 3.4:

Leverage strategies and public-private partnerships to improve the digital economy within Nebraska to maximize broadband investment.

Activities:

- Align broadband funding in areas of the state where there is targeted investment that supports economic development, improved health outcomes, enterprise and opportunity zones, workforce development programs, and K-12 learning.
- Encourage industry-academia collaboration in research and development to foster innovative broadband technologies and solutions that can increase the efficiency and quality of broadband services.
- Improve digital literacy throughout the state to increase the demand for broadband services and make the state more attractive to investors and companies.
 - Connect entrepreneurs to internet service providers for collaboration.

Performance Metrics:

- Amount of funding invested to support Nebraska’s digital economy.
- Number of companies who become established in Nebraska or relocate to Nebraska to take advantage of Nebraska’s digital economy.

Goal 4: Develop robust collaboration across Nebraskan communities through strategic planning of broadband and digital equity to ensure that all unserved and underserved communities are connected.

Community resiliency is the ability to use available resources over the long-term to respond to needs. This can happen if there are systems in place to connect individuals and groups and allow them to coalesce to meet collective needs. Broadband is essential to enabling that interconnection. The Broadband Office will develop a model that encourages and empowers stakeholders to convene around shared goals and values to find solutions that will reduce the existence of the digital divide.

Strategy 4.1

Develop regular forums by which broadband policy and decision making can be promulgated and feedback for such policy and decision making can be provided.

Activities:

- Establish regular community and industry forums to collect feedback to inform grant making and report on the status of the Plan. Such forums include:

- Annual Broadband Summit for local government, agriculture, economic development, business, education, internet provider, and public safety leaders
- Monthly stakeholder meetings.
- Monthly webinars to be posted on the Broadband Office website
- Conduct annual assessments on the state of broadband, risks to the broadband industry, and updates on strategies that include communications, industry capabilities and recovery initiatives.
- Conduct yearly Broadband Office-led listening tour to solicit feedback from communities and industry stakeholders.
- Conduct high level capacity and technical training with locally and regionally identified local government, agriculture, economic development, healthcare, education, and public safety leaders.

Performance Metrics:

- Number of community and industry stakeholder meetings hosted.
- Hold Broadband Summit.
- Develop mechanisms to identify local and regional leaders who can work with the Broadband Office.
- Number of training opportunities created and held to develop capacity and technical training with locally and regionally identified local government, agriculture, economic development, healthcare, education, and public safety leaders.

Strategy 4.2

Utilize robust collaboration to create local engagement by proactively developing local leadership capacity so that transparent informed local policy making can assist in providing broadband access to all Nebraskans.

Activities:

- Empower local organizations to work with ISP providers to develop broadband plans.
- Develop a program for recognized Municipalities and Counties that are “Broadband Ready” to achieve the following in coordination with local organizations:
 - Identify a local champion to help them work with local governments, agriculture leaders, business leaders, educational leaders, economic development leaders and public safety leaders.
 - Form local teams to engage the local and regional entities that influence broadband deployment decisions, including regulatory agencies, business leaders with broadband needs, and educational institutions.
 - Develop local capacity and technical needs assessments.

Performance Metrics:

- Number of training opportunities offered.
- Number of “local champions” engaged.

Goal 5: Ensure the long-term sustainability of deployed infrastructure necessary to preserve access by all Nebraskans to affordable and reliable communications services provided by broadband capable networks.

Spurred on by the attention during the COVID pandemic regarding the need for broadband infrastructure to provide universal access to broadband services for remote access to work and education, state and federal governments have made an unprecedented investment in capital construction costs for deployment of such infrastructure. Starting with the America Rescue Plan Act, and continuing with the Infrastructure and Jobs Act, and U.S. Department of Treasury Capital Projects Funds, significant federal support has been dedicated to this endeavor. The State of Nebraska has also dedicated state General Funds towards capital construction of broadband networks in recent years. With this investment in new and upgraded networks as well as the continuation of existing networks, it is reasonable to expect unprecedented costs for operating, maintaining, and upgrading these networks.²

Strategy 5.1

Encourage Federal and Nebraska policymakers to modernize the FUSF and NUSF.

Activities:

- Encourage the Commission to continue to reassess the utility of the NUSF program
- Encourage for the Commission to address issues related to the stability and efficacy of the NUSF.
- Monitor broadband buildout to assess the impact on the level of NUSF contributions.
- Examine how information/broadband services align with the goals and policies of the NUSF.

Performance Metrics:

- The Commission’s continued use of the NUSF program to bolster its universal service goal
- Successful alignment of information/broadband services with the goals and polices of the NUSF

Strategy 5.2

Determine alignment of FUSF support programs (i.e., A-CAM and “Legacy” programs) with Nebraska broadband policies, including NUSF.

² 47 U.S.C. § 254(e) provides that FUSF shall be used “only for the provision, maintenance and upgrading of facilities and services for which the support is intended.” Neb. Rev. Stat. § 86-317 states that the purpose of the Nebraska Telecommunications Universal Service Fund Act “is to authorize the commission to establish a funding mechanism which supplements federal universal service support mechanisms.” Consistent with federal requirements, Neb. Rev. Stat. § 86-324(1) specifies that NUSF support shall be used “only for the provision, maintenance and upgrading of facilities and services for which the support is intended.” *Neb. Rev. Stat.* §86-323 states the overall purpose of the NUSF, authorizes the Nebraska Public Service Commission (Commission) to administer the program, and further states that it is the policy of the State that the “distribution of universal service funds should encourage the continued development and maintenance of telecommunications infrastructure.”

Activities:

- Determine where shortfalls exist in the provision of support for ongoing expenses, maintenance, and upgrading costs for the network, utilizing updated cost model data.

Performance Metrics:

- If any shortfalls are discovered, timely support is provided to address them.

Strategy 5.3

Ensure that long-term commitments are satisfied under state administered broadband deployment grant programs other than FUSF and NUSF programs.

Activities:

- Ensure any state-administered broadband deployment grant programs include service commitment periods (NBBP requires 15 years).
- Assess technical, financial, and managerial capabilities of state-administered broadband grant program applicants to manage a network long-term.
- Establish/enhance/retain accountability standards for state-administered broadband deployment grant programs.
 - Accountability for support received
 - Accountability for meeting deployment obligations
- Establish/enhance enforcement protocols.
 - Mechanisms for enforcement in the event deployment obligations are not met
 - Mechanisms for enforcement in the event support is not used for its intended purpose

Performance Metrics:

- State-administered broadband deployment grant programs include service commitment periods
- Accountability measures are developed and enhanced for state-administered broadband deployment grant programs

Performance and Evaluation Recommendations

Benchmarking the success of the Nebraska Strategic Broadband Plan is important to assess what is working or needs improvement. Included are various metrics associated with each goal. The list below includes existing and new metrics for consideration. The next step of the Plan will be to coordinate stakeholders to finalize the metrics (outcome and lead measures).

Goal One

- Increase in broadband access (minimum 100/20) for rural households from 86.7% to 100% of households served.
- Number of households served with minimum speed standard of reliable 100 Mbps symmetrical upload and download (unless geographically, topography, or excessive cost then 100/20 and scalable to 100/20).
- Number of homes on tribal lands being connected to broadband speeds of 100/20 mbps.
- Number of speed tests confirmed.
- Percent increase in confirmed reported service speeds.
- Number of unserved and underserved connected to high-speed internet.

Goal Two

- Number of residents participating in the statewide Digital Equity Plan.
- Number of digital literacy programs, navigators, and partnerships.

Goal Three

- Number of individuals who have successfully participated in an industry focused workforce development program.
- Number of job placements in industry focused positions.
- Percent of local government units engaged
- Number of Broadband service providers that receive upgraded broadband equipment.
- Number of rural service providers that receive upgraded broadband equipment.

Goal Four

- Number of community and industry stakeholder meetings hosted.
- Number of CAIs connected to high-speed internet.

Goal Five

- The Commission's continued use of the NUSF program to bolster its universal service goal
- Successful alignment of information/broadband services with the goals and policies of the NUSF
- If any shortfalls are discovered, timely support is provided to address them.
- State-administered broadband deployment grant programs include service commitment periods
- Accountability measures are developed and enhanced for state-administered broadband deployment grant programs

Conclusion

The Nebraska Strategic Broadband Plan's goals and actions serve as a specific implementation plan for the Broadband Office. The plan includes short and long-term goals and actions that rely on funding. Therefore, the time frame for completion of goals and actions depends on available funding and is not included at this time. Implementation of the goals and actions will ensure that the state connects 100% of households to high-speed internet by 2027.

Appendix B – Tribal Leader Letter



COMMISSIONERS:
ERIC KAMLER
CHRISTIAN MIRCH
TIM SCHRAM
KEVIN STOCKER
DAN WATERMEIER



February 8, 2023

Chairman Leander Merrick Omaha Tribe of Nebraska PO Box 368
100 Main Street
Macy, NE 68039

Dear Honorable Tribal Leader:

On behalf of the Nebraska Public Service Commission (Commission) and working in coordination with the Nebraska Information Technology Commission/Office of the CIO (NITC/OCIO) and the Nebraska Broadband Office (Broadband Office), I am initiating a Tribal Consultation request concerning the Broadband Equity Access and Deployment (BEAD) and Digital Equity Act programs administered by the National Telecommunications Information Administration (NTIA). The BEAD program would use funding allocated to the state by the NTIA through the federal Infrastructure Investment and Jobs Act (IIJA). The primary goal of the BEAD program is to bring affordable broadband access to unserved areas lacking broadband at minimum speed of 25/3 Mbps. The Digital Equity Act programs promote digital equity and inclusion aiming to ensure that all people and communities have the skills, technology, and capacity needed to fully benefit from the digital economy. In accordance with the NTIA's process, the Commission and NITC/OCIO, working with the Nebraska Broadband Office are

developing a statewide plan for both digital equity planning and assessing broadband availability and affordability needs and challenges to determine how best to distribute the BEAD funding as well as the development of digital equity projects and implementation of digital equity plans. As part of this process, we are required to file a proposed five-year action plan to address how BEAD funding should be prioritized on or before August 12, 2023.

We are requesting a consultation with you to ensure that your input informs the use and timing of the Digital Equity and BEAD program funding from the IIJA. Through this consultation the Commission, NITC/OCIO, and the Broadband Office will be interested in hearing your perspective on digital equity planning and allocating BEAD program funding to meet the broadband availability and affordability needs which may be of importance to you. We would be very interested in meeting personally with you and/or Tribal representatives with your delegation of authority to seek your advice and insights as we are gathering broadband access and affordability data. We respectfully request a meeting with you at a time and place of your convenience, which hopefully can be held before the end of **March 2023**, so that we can fully integrate your advice and insights into our digital equity plans and our five-year action plan for the use of BEAD funding. We would ask that if this timeframe does not work for you, that you please let us know when you would be available for a consult.

Some topics which might be covered include:

- Current broadband infrastructure and the broadband infrastructure deployment needs in your community;
- Any existing plans you may have for infrastructure upgrades and broadband adoption activities;
- The type of broadband solutions that you believe would be best to address those needs.
- Affordable broadband programs, including:
 - providing free or reduced-cost broadband service;
 - preventing disconnection of existing broadband service;
- Education and distance learning needs;
- Telehealth needs;
- Public Wi-Fi availability; and
- Digital equity and inclusion efforts.

Additional questions we have include:

- Are there any ways in which we can provide assistance where broadband deployment and digital equity and inclusion needs are identified?
- Would you like to be included in state digital equity plan development?
- Would you like to be included in the BEAD five-year action plan development

- stakeholder process and in the subsequent BEAD program implementation?
- Would you like to be a subgrantee during the implementation of BEAD or leverage any resources our teams may have available?

We would be happy to discuss any other topics related to digital equity or broadband development and adoption which are of interest to you.

As an alternative to an in-person meeting, we would be happy to work with you to discuss these issues in any way that is convenient for you. We can arrange for a virtual meeting, a telephone conversation, or if you would prefer, written suggestions can be submitted to the undersigned at psc.broadband@nebraska.gov.

Please reach out at your convenience so that we can schedule the consultation and start the discussion process. To schedule this consultation please reach out to Rachael Surmick, our Broadband Outreach Coordinator, at 531-893-1522. If you have any questions regarding this request, or if there is another contact, we should include, please reach out to me at (402) 471-3101. I look forward to meeting with you and to our consultation.

Sincerely,



Dan Watermeier, Chair
Nebraska Public Service Commission



Ed Toner/
Nebraska Chief Information Officer



Patrick Redmond
Interim Director, Broadband Office

cc: Tom Rolfes, NTIA Broadband Program Specialist-Nebraska (trolfes@ntia.gov)
Robyn Madison, NTIA Regional Director, Northern Plains (rmadison@ntia.gov)
Stephanie Henning, NTIA Tribal Liaison, Nebraska (shenning@ntia.gov)