

NEBRASKA

A yellow swoosh underline that starts under the 'N', goes under the 'E', 'B', 'R', 'A', 'S', 'K', and ends under the 'A'.

Rural Broadband Task Force

Findings and Recommendations

Executive Summary

October 2021





Executive Summary

The Rural Broadband Task Force was created to “review issues relating to availability, adoption, and affordability of broadband services in rural areas of Nebraska” by LB 994, which was passed by the Legislature and signed by Governor Ricketts on April 17, 2018. The bill was introduced by Senator Curt Friesen, Chair of the Transportation and Telecommunications Committee. The task force is chaired by Ed Toner, CIO for the State of Nebraska and Chair of the Nebraska Information Technology Commission. This is the second report presenting the task force’s findings and recommendations as required by LB 994.

Progress Since the 2019 Report

Considerable progress has been made in implementing many of the recommendations in the task force’s 2019 report. The following list highlights the progress made:

- [\\$29.5 million in grants was awarded](#) to 60 projects bringing broadband to 17,600 households through the Remote Access Rural Broadband Grant Program. The grant program was funded by the CARES Act and administered by the Nebraska Department of Economic Development.
- [LB 388](#) which was enacted in 2021 created the [Broadband Bridge Grant Program](#). \$20 million a year for two years was appropriated for the program. The deadline for the first round of applications is Oct. 1, 2021.
- Broadband projects funded through the Nebraska Universal Service Fund have connected 19,583 households since 2019.
- Remittances to the Nebraska Universal Service Fund increased from \$32.8 million in 2018 to \$46.8 million in 2020 due to reforms to the residential contribution method.
- The Public Service Commission is taking steps to initiate a reverse auction of \$3 million in NUSF support.
- [LB 338](#) improved the accountability of the Nebraska Universal Service Fund by specifying build out requirements of 100 Mbps down and 100 Mbps up and by requiring recipients to conduct and submit speed tests.
- The Nebraska Public Service Commission established the E-Rate Special Construction Matching Program in 2020, providing matching funding for 6 public libraries and one public school in the first year of the program.
- Governor Ricketts, the Nebraska Department of Education, Educational Service Units, and local school districts coordinated federal funding to purchase computing devices, hot spots, and internet-enabled devices as well as implement connectivity projects.
- [LB 992](#), enacted in 2020, established a process to use private utility easements for communications and made the process of leasing dark fiber less burdensome.

Findings and Recommendations

Broadband Data and Mapping

Current state and federal broadband mapping efforts likely overstate broadband coverage and need to be improved. In 2019, the task force recommended waiting for the FCC to improve its broadband data collection. The State of Nebraska can no longer wait for the FCC to provide more accurate broadband availability data and mapping.

Key Recommendation

- Initiate a program to map broadband availability for serviceable locations in the state augmented by speed test data.

Alternative Technologies and Providers

Several emerging technologies may be well-suited for rural areas. Fixed wireless technologies using mid-band spectrums could potentially provide service of 100 Mbps or greater in rural areas. SpaceX (Starlink) is the first company to provide broadband service via low Earth orbit satellites and is now offering its beta service to users at some locations in Nebraska. TV white space has received significant attention. However, it may be better suited for lower bandwidth or non-line-of-sight applications.

Nebraska Universal Service Fund and Reverse Auction

The Nebraska Universal Service Fund (NUSF) provides support to price cap, rate of return, and mobile wireless carriers in Nebraska. A total of \$36,545,562 is available for broadband projects in high cost areas through the NUSF in 2021. Since 2019, 19,583 households have been connected through broadband projects funded through the Nebraska Universal Fund.

The total remittances to the NUSF have increased from approximately \$32.8 million in 2018 to \$46.8 million in 2020. The increase is due to the Nebraska Public Service Commission's actions to reform the contribution methodology for residential services. Further changes to the contribution mechanism for business services is projected to increase the size of the fund to approximately \$52 to \$55 million. Even with steps to stabilize the fund, however, the size of the fund is not sufficient to provide support

for fiber deployment to all Nebraska residences and businesses.

The Nebraska Public Service Commission is establishing rules and procedures for a reverse auction and is expected to move through the process of redirecting \$3 million of support in 2022.

Key Recommendations

- Evaluate the results of the Nebraska Public Service Commission's expected reverse auction of NUSF support.
- Coordinate the distribution of NUSF support with other funding sources to avoid duplication of funding and to target funding to areas most in need of support.
- As funding from multiple sources is being utilized for broadband deployment projects, state and federal policymakers will need to develop mechanisms to ensure that broadband networks are being supported.

Public-Private Partnerships and Broadband Planning

Grant programs such as the Remote Access Rural Broadband Grant Program and the Nebraska Broadband Bridge program which provide funding for broadband deployment projects in unserved and underserved areas are essentially a form of public-private partnerships. Governor Ricketts and the Legislature are expected to allocate any additional federal funding for broadband deployment projects in 2022.

Key Recommendations

- Express appreciation to Governor Ricketts and the Legislature for recognizing the importance of broadband to Nebraska and for providing funding for broadband through the Nebraska Broadband Bridge grant program and the Remote Access Rural Broadband Grant program.
- Review the initial round of awards from the Broadband Bridge Grant Program to determine the impact of the program.
- Encourage local and regional broadband planning.

Agriculture

Farmers and ranchers need upload speeds of at least 30 Mbps to transfer large amounts of generated data to the cloud. In the future, even greater upload speeds may be required. Rural areas of most Nebraska counties—including many of Nebraska’s top-producing agricultural counties—lack broadband with upload speeds of greater than 25 Mbps or fiber connectivity.

Different methods of connectivity are required for agriculture, including:

- Low-bandwidth connectivity for devices like sensors or monitors often called internet of things (IoT) devices
- High speed, centralized broadband with upload speeds of at least 30 Mbps up for targeted agricultural operational headquarters such as a farm or ranch operations center
- High-speed decentralized coverage over large agricultural areas

Key Recommendations

- Establish a state goal of having broadband access to every farm or ranch headquarters.
- Focus a portion of broadband funding on the highest cost areas.
- Review the initial round of awards from the Broadband Bridge Grant Program to determine if adjustments to program requirements could aid in funding extremely high cost rural areas.

Digital Inclusion, Homework Gap and Leveraging E-Rate Funding

Those without broadband connectivity at home struggled to learn, access health care and work remotely during the COVID-19 pandemic. Approximately 12% of Nebraskans or 215,000 individuals do not have a broadband subscription at home. This includes 32,000 Nebraskans under 18 years old.

Governor Ricketts, the Nebraska Department of Education, Educational Service Units, and local school districts coordinated federal funding to close the connectivity gap for students by purchasing computing devices, hot spots, and internet-enabled devices. Federal funding also helped some libraries improve their broadband connections and start/expand hotspot lending programs.

Libraries are key community partners in providing internet and computer access to students and the general public—especially in rural areas, but just over half of Nebraska libraries serving communities with populations of less than 2,500 have internet access below 25 Mbps down and 3 Mbps up.

Increased support for low-income households is currently being provided through the FCC Emergency Broadband Benefit Program.

Key Recommendations

- Encourage public libraries and schools without fiber connections to apply for support for new fiber construction from the E-Rate Special Construction matching fund.
- Encourage school districts, ESUs, public libraries, and communities to implement programs such as Wi-Fi on buses, hotspot lending programs, low cost pay-by-the-month internet access, or alternative wireless deployments for student access on school-issued devices in order to reduce the number of unserved and underserved students.
- Encourage communities and regions to develop digital inclusion plans to address multi-generational needs.

Broadband Technician Workforce

Nebraska, like the rest of the country, currently faces a shortfall of skilled workers needed to deploy broadband. Additional investments in broadband will likely increase the demand for skilled workers.

Key Recommendation

- The telecommunications industry, the state’s community colleges, local school districts, and economic development and workforce development agencies should engage in conversations about recruitment of technicians as well as developing training and apprenticeship programs.



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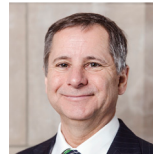
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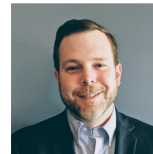
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