

RURAL BROADBAND TASK FORCE

Friday, Sept. 11, 2020 9:30 a.m. to 12:00 noon CT

1526 Building, 1526 K Street, Lower Level Training Room, Lincoln, Nebraska

MEMBERS PRESENT:

Ed Toner, Chair, Nebraska Information Technology Commission
Senator Curt Friesen, Nebraska Legislature
Senator Bruce Bostelman, Nebraska Legislature
Dan Curran for Tony Goins, Nebraska Department of Economic Development
Zachary Hunnicutt, Farmer, Hunnicutt Farms
Timothy Lindahl, Wheat Belt Public Power District
Andrew Buker, University of Nebraska

Members Participating via Video (Participation only, not able to vote)

Mary Ridder, Nebraska Public Service Commission
Isaiah Graham, Homestead Bank
Tom Shoemaker, Pinpoint Communications
Ron Cone, ESU 10

MEMBERS ABSENT Steve Wellman, Nebraska Department of Agriculture; Anna Turman, Catholic Health Initiative; Daniel Spray, Precision Technology

OPENING BUSINESS, ROLL CALL NOTICE OF POSTING OF AGENDA NOTICE OF NEBRASKA OPEN MEETINGS ACT POSTING

Ed Toner, Office of the Chief Information Officer

Mr. Toner called the meeting to order at 9:35 a.m. There were seven voting members present at the time of roll call. A quorum was not present to conduct official business. The meeting announcement was posted on the Nebraska Public Meeting and Rural Broadband Task Force websites on August 13, 2020. The agenda was posted on the Rural Broadband Task Force website on August 19, 2020.

APPROVAL OF THE FEB. 7, 2020 MINUTES*

Approval of the minutes was tabled.

UPDATES

Legislation-Nebraska

Senator Friesen gave the legislative update. LB 992 was amended due to the financial challenges facing the state as a result of the COVID-19 pandemic. The amendment took out the library positions and moved the effective date of the broadband coordinator position to July 1, 2022. The amendment also moved the broadband coordinator to the OCIO. The bill specifies a process to use electric utility easements for communications, establishes an E-Rate matching program, defines the length of terms for task force members, and made changes to process of leasing dark fiber by public entities. The bill was passed by the legislature and signed by Governor Ricketts.

LB 996 creates the Broadband Data Improvement Program. It was also passed by the legislature and signed by Governor Ricketts.

Hearings may be held on two interim studies:

- LR 438 Interim study to continue to monitor the activities of the Rural Broadband Task Force that was created by Laws 2018

- LR 429 Interim study to examine issues related to mapping broadband coverage throughout Nebraska, hopefully federal program will help state's efforts.

Mr. Toner thanked Senators Friesen and Bostelman for their efforts to advance rural broadband.

Nebraska Department of Economic Development. On June 12, 2020, Governor Ricketts announced that \$40 million in CARES Act funding would be used for a Nebraska Broadband Grant Program. The program is being administered by the Nebraska Department of Economic Development. Mr. Curran explained that guidance from the Department of Treasury stated that projects had to be completed by Dec. 30, 2020. The tight timeline presented a challenge. Over 100 applications were submitted. Sixty-one grants totaling approximately \$29.5 million were approved. A list of awardees will be made available after all of the contracts are finalized. Many of the projects are underway. A handful of projects are 60% complete. Senator Bostelman asked if the projects funded were in rural areas outside of towns or in towns. Many of the projects are for areas outside of city limits.

Nebraska Public Service Commission. Cullen Robbins provided updates on Commission actions:

- The Nebraska Public Service Commission issued an order adopting rules for a reverse auction on July 14, 2020 through their Rules and Regulations 202 docket.
- The Nebraska Public Service Commission is examining changes to the provision of high cost support to price cap carriers including updating the minimum speeds and implementing a time limit in which to complete projects through the NUSF 99 docket.
- The PSC has opened a docket seeking comment on modernizing the contribution system for business and government services.
- The Nebraska Public Service Commission approved the Nebraska Special Construction Matching Fund program and allocated \$1 million over four years for the program.
- The PSC has also been working on a docket focusing on telehealth.
- The PSC established a \$1 million grant program to provide broadband services at no cost to low-income consumers impacted by the COVID-19 pandemic. The Commission has started receiving applications from carriers.

PUBLIC-PRIVATE PARTNERSHIPS AND PRECISION AG

Panelists: Julie Bushell, Paige Wireless; Pat Pope, NPPD; Tim Lindahl, Wheat Belt Public Power District; and Zachary Hunnicutt, Hunnicutt Farms

Julie Bushell said that Paige Wireless will cover the state with LoRaWAN. LoRaWAN stands for Long Range Wide Area Network and is a low power networking protocol designed to connect battery-operated sensors and other devices to the internet. LoRaWAN can provide connectivity for sensors at approximately one-tenth of the cost of a cellular connection. Dropping the price of connectivity can lead to a revolution in data. It is being used for ground water modeling by the Twin Platte NRD. It can also be used for agricultural applications. A pilot in Arnold is providing 130 Mbps down/130 Mbps up broadband to the combine. Ms. Bushell invited task force members to visit the precision ag pilot site in Arnold. Ms. Bushell also said that she co-founded a cooperative of wireless internet service providers to leverage their resources.

Pat Pope discussed how NPPD has been partnering with Paige Wireless and other efforts to promote the deployment of broadband in Nebraska. NPPD had looked at partnering with telecommunications to apply for funding from the Rural Digital Opportunity Fund, but found there wasn't enough time to get everything in place to submit an application to bid. NPPD's experience pointed out the need to be prepared with shovel-ready projects. NPPD is focusing on planning and is working with NRTC to promote service territory-wide. OPPD, Loup Power District, and South Central Public Power District are also involved in the planning effort. NPPD has also sponsored the University of Nebraska at Kearney broadband speed test project.

Tim Lindahl said that he has been talking to Isfandiyar Shaheen from Netequity about a pilot project to install aerial fiber using technology developed by Facebook. The technology can only be used for open networks.

Julie Bushell is Vice Chair of the Encouraging Adoption of Precision Agriculture and Availability of High-Quality Jobs on Connected Farms Working Group. Dan Spray is also a member of that working group. Zach Hunnicutt and Public Service Commissioner Dan Watermeier are members of the Accelerating Broadband Deployment on Unserved Agricultural Lands Working Group. Ms. Bushell and Mr. Hunnicutt gave brief updates on the working groups.

Task Force members were interested in forming a subcommittee on agriculture. Discussion of the formation of a subcommittee was tabled until the next meeting.

BROADBAND AND TELEHEALTH IN RURAL NEBRASKA

Panelists: Brian Sterud and Grant Nordby, Faith Regional Health Services; Leslie Marsh, Lexington Regional Health Center

Grant Norby shared three ways Faith Regional Health Services is using telehealth:

- **Asynchronous virtual visit from a cell phone.** If needed, the visit can be stepped up to a chat or phone call.
- **Video visits through the teleclinic network.** These were used for visits with nursing home patients.
- **Directed visits.** Patients were sent a link and could be seen by a doctor.

Most clinics had adequate broadband. Tilden struggled with connectivity issues.

Through a telehealth grant from the FCC, Faith Regional is implementing a remote patient monitoring program. Over 100 devices were purchased. The project will prioritize COVID-19 patients or those at risk of complications. Patients will need WiFi or cellular service.

Leslie Marsh shared that Lexington Regional Health Center has been using telehealth for specialist services including telepsych and telestroke. After the COVID-19 uptake, waivers by the Centers for Medicare & Medicaid Services (CMS) allowed more uses of telehealth. Lexington Regional Health Center used telehealth to treat patients in the hospital so only a nurse was in the room. This helped keep staff safe and conserved personal protective equipment. Lexington Regional Health Center also started a virtual respiratory clinic. They also started using Zoom for patient visits, but found that patients had to have time to download the app. They switched to Facetime which was easier for patients. Lexington Regional Health also used Facetime on iPads in rooms to bring in translators for patients who did not speak English.

Panelists mentioned several benefits to telehealth:

- Keeping patients and staff safe while still providing care
- Managing client care including wellness visits
- Managing language and culture
- Lowering barriers to care—An asynchronous telehealth visit is \$40 with or without insurance.
- Improving access to services—especially telepsych

HOMEWORK GAP & CARES ACT FUNDING FOR EDUCATION

Panelists: Dean Folkers, Nebraska Department of Education; Ron Cone, ESU 10; Andrew Buker, University of Nebraska; Michael Oltrogge, Nebraska Indian Community College

Tom Rolfes moderated the session.

Dean Folkers shared information on how CARES Act funding is being used to address student devices and connectivity. The CARES ACT includes the following funding programs:

- Local Education Agency Resources (\$59 million)
- Statewide (\$6.5 million)
- Governor's Emergency Education Relief Fund (GEER) (\$16.4 million). Priorities include addressing the digital divide and related issues to support remote learning for students in K-12 schools and providing equitable access to technology for all students and improving parity in access to all schools. Funds can be used for hardware purchases for use of school students and improving access to reliable, high-speed internet for students. Some flexibility will be reserved to address additional COVID-19 issues.

The Nebraska Department of Education estimates that approximately 40,000 students do not have sufficient educational broadband access at home. Project options include:

- Mobile Cellular Hotspots
- Homework Hotspots at Community Institutions
- Working with Local Internet Providers
- TV White Space (TVWS) [470-698 MHz]
- Wireless Education Broadband Services (EBS) [2.5 Ghz]
- Low Earth Orbit (LEO) Satellite Service

Information on student devices and connectivity is being collected by a survey. A Request for Quote (RFQ) has been issued to internet service providers.

Ron Cone shared information on how schools in ESU 10 are addressing the homework gap. Grand Island Public Schools identified over 120 student homes that lacked internet service due mainly to affordability issues. Grand Island Public Schools purchased 120 mobile hot spots. They are concerned about ongoing monthly costs and tracking hotspots. Grand Island Public Schools is looking at a CBRS wireless solution which will provide 5 Mbps down/5 Mbps up per student or 10 Mbps down/10 Mbps up per home.

Central Valley Public Schools (Greeley, Wolbach, North Loup & Scotia) identified 56 homes and 118 individuals (students and teachers) with inadequate or no internet access. During the COVID-19 closure, the district relied heavily on printed instructional packets. These households are located across a large geographic area. The district has engaged local providers for possible solutions and available service options at the bandwidth needed. The district is also researching a wireless solution using TVWS or 900MHz. Multiple tower locations and heights would be needed. The district may be contacting the local coop and tower owners or consider constructing their own tower.

Dr. Oltrogge shared information on the Northeast Nebraska Tribal Broadband Wireless Project. The educational broadband wireless project is set up so that all K-12 and NICC students within the boundaries of the Omaha and Santee Reservations gain access and maintain access to the internet for remote and other learning opportunities. The project is using the 2.5 GHz Rural Tribal Broadband spectrum. The Santee Reservation and Omaha Nation submitted applications in July. The Santee Reservation application is straight forward. The Omaha Nation application requested a waiver to include the entirety of the Bancroft-Rosalie School district with the support of the Omaha Nation, the Bancroft-Rosalie's schools and the Village of Bancroft. The Santee Reservation and Omaha Nation received Special Temporary Authorizations (STA's) from the FCC to turn the systems on when operational. The STA's are valid until December 15-20, 2020. The Nebraska Indian Community College, via the Omaha and Santee Nations, will maintain the FCC license.

The college paid for the base stations and the majority of the base station installation costs via CARES Act funds. The college will be paying for the end user equipment and installation costs for its students. The college will have overall control of the cloud core.

Umo^{ho} Nation, Bancroft Rosalie, Walthill, Pender and Santee are the base station locations and will maintain internet connectivity. The students at each of the schools have the capability to utilize no cost internet services. The schools provide the installation and their end user equipment for their students. All parties will be signing an official MOU in the future.

Andrew Buker shared information on the Eduroam project. Eduroam is a secure, world-wide wireless network roaming access service developed for the research and education community. It allows students, faculty, and staff from participating institutions to obtain secure Internet connectivity across participating institutions by simply opening their laptop or turning on their device. Eduroam is available in over 100 countries and more than 12,000 locations, from campuses to coffee shops. Eduroam is based on the most secure wireless encryption and authentication standards in existence today, far exceeding typical commercial hotspots.

Network Nebraska will join an Internet2 program to allow all members to offer Eduroam services. NDE has secured \$65,000 in CARES funding to cover first year costs. Participating school districts will remain in control of their own policies and content filtering for compliance with CIPA, COPPA, and USAC E-Rate funding. Students, faculty, and staff will have access to Eduroam hotspots throughout the state.

ADJOURNMENT

Mr. Hunnicutt moved to adjourn. Mr. Buker seconded. The meeting was adjourned at 12:10 p.m.

Meeting minutes were taken by Lori Lopez Urdiales and reviewed by Anne Byers of the Office of the CIO.