

Rural Broadband Task Force

Monday, October 15, 2018

9:30 a.m. to Noon CDT

Varner Hall, Lower Level, Board Room
3835 Holdrege Street, Lincoln, Nebraska

Web streaming for up to 100 viewers will be available. Information for connecting via Zoom is included on the following page. Links to agendas, minutes, and meeting materials are available at ruralbroadband.nebraska.gov

Agenda

9:30	Opening Business — <i>Ed Toner, Office of the Chief Information Officer</i> Roll Call Notice of Posting of Agenda Notice of Nebraska Open Meetings Act Posting <i>Approval of the Sept. 24 minutes*</i>
9:40	Introductions — <i>Ed Toner</i> Isaiah Graham
9:45	Definition of Rural — <i>Ed Toner</i>
9:55	Nebraska Universal Service Fund and Connect America Fund — <i>Cullen Robbins</i>
10:55	NUSF Discussion: <ul style="list-style-type: none">• How will the task force “examine the role of the Nebraska Telecommunications Universal Service Fund in bringing comparable and affordable broadband services to rural residents and any effect of the fund in deterring or delaying capital formation, broadband competition, and broadband deployment” as charged in Neb. Rev. Statutes 86-1102?• <i>Formation of a Subcommittee*</i>
11:20	Other Nebraska Broadband Programs, Studies, Initiatives — <i>Anne Byers</i>
11:25	Data on Broadband Availability and Adoption <ul style="list-style-type: none">• Discussion: What data on broadband availability and adoption do we need? What data is currently available? How can we get the data we don’t have but need?• <i>Formation of a Subcommittee*</i>
11:50	Meeting Schedule and Plan of Work — <i>Ed Toner</i>
12:00	Adjourn

The task force will attempt to adhere to the sequence of the published agenda, but reserves the right to adjust the order and timing of items and may elect to take action on any of the items listed.

Meeting announcement was posted on the Nebraska Public Meeting Website on Sept. 26, 2018 and on the Rural Broadband Task Force website on Sept. 28. The agenda was posted on the Rural Broadband Task Force website on Oct.11, 2018.

[Nebraska Open Meetings Act](#)

Web Streaming Connection Information for Oct. 15 Rural Broadband Task Force Meeting

Please click the link below to join the webinar:

<https://zoom.us/j/697925113>

Or iPhone one-tap :

US: +16699006833,,697925113# or +16465588656,,697925113#

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Dial(for higher quality, dial a number based on your current location):

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Webinar ID: 697 925 113

RURAL BROADBAND TASK FORCE
Monday, Sept. 24, 2018, 9:30 a.m. to Noon CDT
Varner Hall, Lower Level, Board Room
3835 Holdrege Street, Lincoln, Nebraska
MINUTES

MEMBERS PRESENT:

Ed Toner, Chair, Nebraska Information Technology Commission
Senator Curt Friesen, District 34, Chair, Transportation and Telecommunications Committee, Nebraska Legislature
Senator Bruce Bostelman, District 23, Nebraska Legislature
Mary Ridder, Chair, Nebraska Public Service Commission
Joe Fox, Director of Business Development , Nebraska Dept of Economic Development
Steve Wellman, Director, Nebraska Dept of Agriculture
Zachary Hunnicutt, Farmer, Hunnicutt Farms
Tom Shoemaker, President, Pinpoint Communications
Daniel Spray, Owner, Precision Technology
Timothy Lindahl, CEO/General Manager, Wheat Belt Public Power District
Anna Turman, CEO, Chadron Community Hospital & Health Services
Andrew Buker, Executive Director of Infrastructure Services, University of Nebraska
Ron Cone, Director of Network Information Services, ESU 10

MEMBERS ABSENT: Isaiah Graham, Vice-President, Homestead Bank

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

Ed Toner

Mr. Toner welcomed members to the first Rural Broadband Task Force meeting. The meeting announcement was posted on the NITC website on August 8, 2018 and on the Nebraska Public Meeting website on August 27, 2018. The agenda was posted on the NITC website and Rural Broadband Task Force website on September 7, 2018. A copy of the Nebraska Open Meetings Act was available on the south wall of the Board Room.

Roll call was taken. There were 10 voting members present. A quorum was present.

ADMINISTRATIVE ISSUES

Ed Toner

Task force members do not receive compensation for serving on the task force, but are entitled to receive reimbursement for any actual expenses incurred for such service. The Office Services Manager sent members information on the process for claiming reimbursement for travel expenses.

Nebraska's Open Meetings Act allows for video conferencing for up to half of the task force's meetings. If the task force would like to utilize videoconferencing, staff can make arrangements for videoconferencing.

INTRODUCTIONS

Ed Toner

Members introduced themselves and shared information on resources, broadband-related projects, and/or how their sector is using technology.

REVIEW PROGRESS IN REACHING GOALS FROM THE 2014 BROADBAND PLAN

Anne Byers, Nebraska Information Technology Commission

In 2014, the Nebraska Information Technology Commission developed a broadband plan in partnership with the Nebraska Broadband Initiative. Anne Byers provided an overview of the plan and an update on the goals set in the plan.

The plan described existing state policies and programs and identified recommendations related to encouraging investments in Nebraska telecommunications infrastructure and increasing the use of broadband technologies. The 10 recommendations were as follows:

1. Encourage investment in Nebraska's telecommunications infrastructure.
 - a. Provide support through the Nebraska Universal Service Fund.
 - b. Aggregate demand and act as an anchor tenant.
 - c. Explore ways to leverage FirstNet and Next Generation 911 investments.
2. Enhance the capacity of local communities to address broadband development.
3. Encourage the development of a skilled IT workforce.
4. Support innovation and entrepreneurship.
5. Support the use of broadband technologies in businesses and agriculture.
6. Support the development of libraries as community anchor institutions.
7. Support the use of broadband in education and health care.
8. Support the use of broadband by government and public safety entities.
9. Support efforts to attract new residents and retain youth.
10. Increase digital literacy and broadband access to the Internet.

Ms. Byers also shared updates on the goals from the 2014 broadband plan.

Comments from the members included:

- There is a need to factor out population centers in estimates of broadband availability.
- It would be good to have data comparing the cost of broadband in metropolitan and rural areas of the state. Although there may be availability in rural areas, it may not be affordable.
- Members discussed the need for the task force to define rural. There was not a clear consensus on a definition, although several members recommended prioritizing efforts to address areas outside city or town limits.

Ron Cone arrived at the meeting.

OVERVIEW OF LB 994 AND CHARGE TO THE TASK FORCE

Tip O'Neill, Telecommunications and Transportation Committee , Nebraska Legislature

Mr. O'Neill distributed a historical timeline of milestones relevant to LB 994. He also reviewed sections of LB 994 pertaining to the establishment of the Rural Broadband Task Force.

VISION AND DESIRED OUTCOMES

Ed Toner

Mr. Toner asked the members assistance with creating a vision statement for the task force based on the intent of the bill which reads as follows:

It is the intent of the Legislature that broadband telecommunications service in rural areas of the state should be comparable in download and upload speed and price to urban areas in the state where possible and that state resources should be utilized to ensure that the rural residents of the state should not be penalized simply because of their rural residence. It is further the intent of the Legislature that the residents of this state should have access to broadband telecommunications service at a minimum download speed of twenty-five megabits per second and a minimum upload speed of three megabits per second.

Due to the rapid changes in technology, members had concerns with having a minimum download and upload speed in the vision statement. Members suggested including the minimum numbers in the goals, rather than the vision. It was also recommended not to separate home and work accessibility. Many rural Nebraskans work from home or do work at home.

More accurate data collection would be very beneficial to the task force. Members were interested in examining what data is needed and exploring ways to get better data.

The members agreed on the following vision statement:

Broadband and telecommunications service in rural areas of the state should be comparable in download and upload speed and price to urban areas.

HOW NEBRASKA RURAL AREAS COMPARE TO NEIGHBORING STATES AND THE U.S.

Overview of Broadband Terms and Broadband Map

Cullen Robbins, Nebraska Public Service Commission

Mr. Robbins gave an overview of the different methods of connectivity: DSL, cable, fiber, fixed wireless, and satellite. Mr. Robbins also discussed how rural is defined by the Nebraska Universal Service Fund. Within the NUSF, rural is defined as a census block that contains fewer than 20 households with a density below 42 households/square mile. Also, areas must not be classified as a city or village by the U.S. Census, and are not within census-designated city limits.

Mr. Robbins provided a demonstration of the Nebraska Broadband Map to task force members.

Broadband Availability and Adoption Data Including Subscription Rates at Higher Speed Tiers

Anne Byers

Ms. Byers shared the following information:

- Nebraska ranks 32nd out of the 50 states and the District of Columbia in broadband availability.
- Nebraska ranked in the middle of our neighboring states in broadband availability of 25 Mbps/3Mbps.
- Nebraska ranks 4th for business download speeds, but 44th for residential broadband download speeds.
- Subscription rates in Nebraska by county vary significantly, ranging from 92% in Sarpy County to 38% in Banner County as of June 2016.
- Rural Nebraskans are more likely to rely upon the library for internet access than metropolitan Nebraskans.
- 74% of Nebraska libraries have internet service less than 25 Mbps down, affecting 269,000 patrons.

Rural broadband availability and adoption is associated with:

- Attraction and retention of millennials
- Greater economic growth
- Higher household incomes
- Small business growth

MEETING SCHEDULE AND PLAN OF WORK/TENTATIVE AGENDA TOPICS

Ed Toner

Meeting dates and times have been scheduled for the remainder of the year. Following are the dates and tentative discussion topics:

October 15:

- Connect America Fund
- Nebraska Universal Service Fund
- How will the task force examine “any effect of the Nebraska Universal Service Fund in deterring or delaying capital formation, broadband competition, and broadband deployment?”
- Other Nebraska programs and policies

November 7:

- What other states are doing
- Alternative technologies (e.g. new fixed wireless technologies, TV white space, low earth orbiting satellites)

December 10

- Public-private partnerships and other alternatives

Meetings will be held at Varner Hall from 9:30 a.m. CT to noon CT.

Future meetings could focus on additional topics the task force members wish to address, topics that need additional information/discussion, and the development of recommendations. The task force can establish advisory groups to have more expertise and opinions to assist with the study.

Spring dates will be scheduled around the Legislative schedule.

ADJOURNMENT

Mr. Honeycutt moved to adjourn. Ms. Ridder seconded. All were in favor. Motion carried.

The meeting was adjourned at 11:50 a.m.

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

Rural Definitions

Proposed Definition of Rural For Rural Broadband Task Force

After listening to input from Rural Broadband Task Force members at the Sept. 24 meeting, we are proposing the following definition of rural:

The Rural Broadband Task Force is adopting the U.S. Census Bureau definition of rural areas as open countryside with population densities less than 500 people per square mile and places with fewer than 2,500 people. The task force also recommends the following prioritization:

1. Unserved Areas Outside City/Town/Village Limits
2. Unserved Areas Within City/Town/Village Limits
3. Underserved Areas Outside City/Town/Village Limits
4. Underserved Areas Within City/Town/Village Limits

We are also proposing to define unserved and underserved as follows:

- Unserved areas are defined as areas with no internet service.
- Underserved areas are areas which have internet service less than 25 Mbps down/3 Mbps up.

Specific state or federal programs may use different definitions. When referring to these programs, we will note which definition is being used.

Common Federal Definitions

U.S Census Bureau

The U.S. Census Bureau defines rural areas as open countryside with population densities less than 500 people per square mile and places with fewer than 2,500 people.

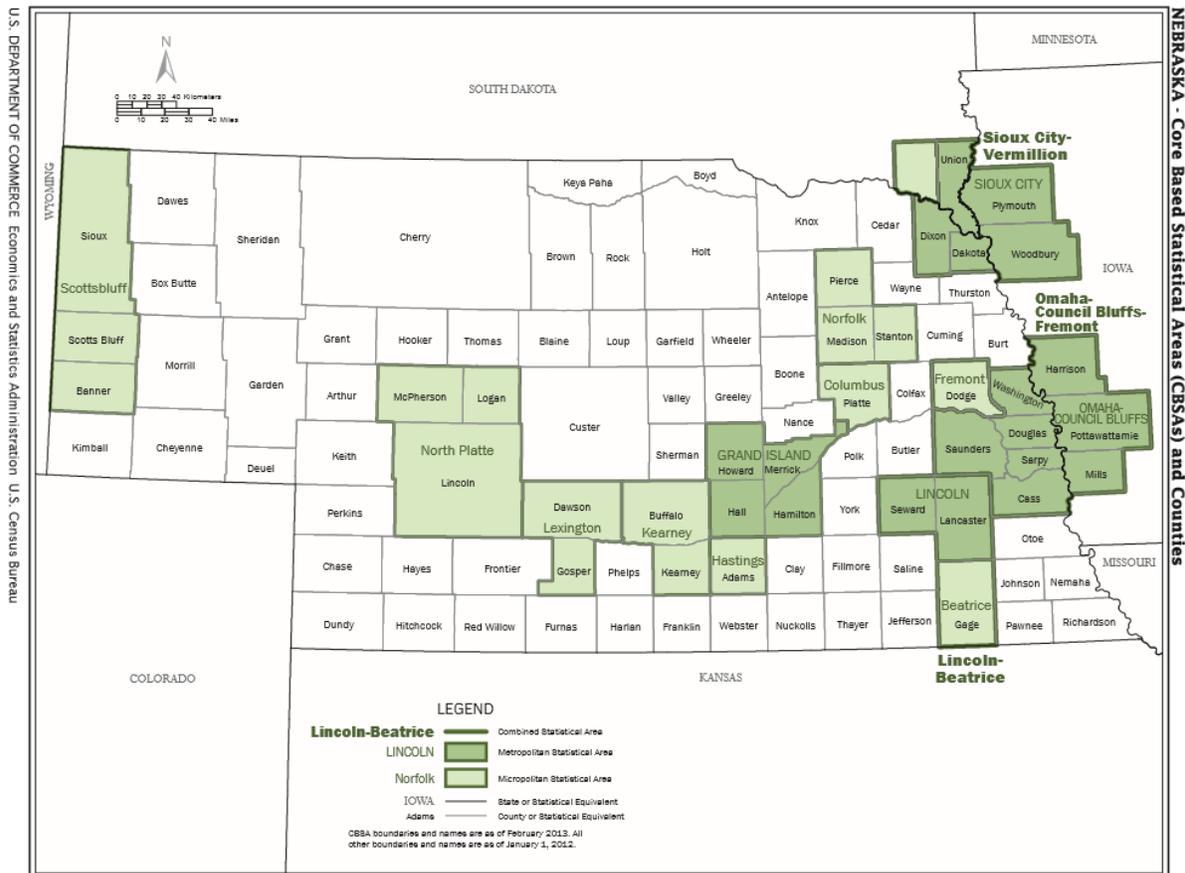
Office of Management and Budget

OMB defines **metropolitan (metro) areas** as broad labor-market areas that include central counties with densely settled urban entities with 50,000 or more people and outlying counties in which 25 percent of workers living in the county commute to or from the central counties. Metropolitan counties in Nebraska include Douglas, Sarpy, Washington, Saunders, Cass, Lancaster, Seward, Hall, Howard, Merrick, Hamilton, Dixon and Dakota Counties.

Nonmetro counties are outside the boundaries of metro areas and are further subdivided into micropolitan and noncore counties. **Micropolitan (micro) areas** are nonmetro labor-market areas centered on urban clusters of 10,000-49,999 persons and outlying counties defined in which 25 percent of workers living in the county commute to or from the central counties. Micropolitan counties in

Nebraska include Dodge, Gage, Pierce, Madison, Stanton, Platte, Adams, Buffalo, Kearney, Dawson, Gosper, Lincoln, Logan, McPherson, Sioux, Scotts Bluff and Banner Counties.

All remaining counties are considered **noncore counties**. See the map below



Nebraska Universal Service Fund Definition

Within the NUSF, rural is defined as a census block that contains fewer than 20 households with a density below 42 households/square mile. Also, areas must not be classified as a city or village by the US Census, and are not within census-designated city limits.

Sources

USDA Economic Research Service. What is Rural? Available at

<https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural/>

The map of Metropolitan, Micropolitan and Noncore Counties in Nebraska is available at

https://www2.census.gov/geo/maps/metroarea/stcbsa_pg/Feb2013/cbsa2013_NE.pdf

Nebraska Broadband Surveys, Studies, and Programs

Speed Tests

Nebraska Farm Bureau Mobile Broadband Speed Tests

The Nebraska Farm Bureau is collecting mobile wireless speed test data. Rural Nebraskans are asked to download the FCC's Speed Test app to their mobile phones and run speed tests. Speed test data should be sent to the Nebraska Farm Bureau. The data may be used to challenge eligible areas for funding from the FCC's Mobility Fund Phase II which will provide up to \$4.53 billion in support over 10 years to primarily rural areas that lack unsubsidized 4G Long Term Evolution (LTE) service. Additional Information is available at <https://nefb.org/nebroadband>.

NREA/NPPD/UNK Speed Test Project

The Nebraska Rural Electric Association (NREA) and NPPD are partnering with faculty of the Information Networking and Telecommunications program at the University of Nebraska at Kearney (UNK) to conduct broadband speed tests in Nebraska residences and businesses. The NREA purchased 100 devices called bobs to conduct and report broadband speed tests of participating homes and businesses. The bobs conduct 11 speed tests an hour. The bobs are equipped with GIS. The units cost over \$100. The speed tests will provide information on average download and upload speeds within city limits by city classes and in rural areas outside city limits.

Public power employees have tested the devices as part of a pilot project. The program was rolled out to the first 100 public power customers in legislative district 41 in late July/early August. The devices will stay at each residence or business for two weeks and will be rotated. There will be two or three rotations in each district. Information will be shared with state senators.

Broadband Costs

UNK Broadband Cost Study

Tim Obermier at the University of Nebraska Kearney is conducting a study of broadband costs in Nebraska by city classes.

Broadband Infrastructure

Network Nebraska

Network Nebraska is a compilation of three major sub-networks: The University of Nebraska network, State and County Government network. Network Nebraska is reducing costs and stimulating investment in Nebraska's telecommunications infrastructure by taking advantage of co-location facilities, Internet and telecommunications contracts, and shared infrastructure wherever possible.

Through aggregated purchasing power, Network Nebraska has succeeded in lowering the unit cost of Internet service to participating entities. By combining Network Nebraska's K-20 Internet purchases into

two state contracts of over 50Gbps, the K-12 E-rate-eligible price has gone from \$.77/Mbps/month on July 1, 2016 down to \$.57/Mbps/month on July 1, 2018, a 26% decrease in unit cost. This will benefit all current and new Network Nebraska schools, ESUs and colleges that purchase their Internet service from the statewide master contract. All of the school districts have scalable fiber WAN circuits ranging in speed from 100 Mbps to 1,000 Mbps or above. The current daily capacity for Internet and Peering is 90 Gbps. Additional information is available at www.networknebraska.net

Nebraska Schools and Libraries: Breaking the Ice and Igniting Internet Relationships

The Nebraska Library Commission, in partnership with The Office of the Chief Information Office, has been awarded a Sparks Grant from the Institute of Museums and Library Services (IMLS) to create local school-library partnerships to improve broadband speeds in the library. Five Nebraska communities have been selected to participate in the grant project: Bancroft, Genoa, Imperial, Verdigre and Wymore. Bayard is also participating with funding from another source. Using fixed wireless technology, the school will provide broadband to the public library, allowing the school district's students and staff to access the school district's network within the public library. This approach will address two national needs: the need for better internet access in libraries with a particular emphasis on providing better access for students to complete homework and the need for new models for E-rate filing. The project began June 1, 2018 and will conclude on May 31, 2019. Additional information is available at <http://nlc.nebraska.gov/grants/sparks/>

Surveys

Nebraska Rural Poll

The Nebraska Rural Poll is conducted annually by the University of Nebraska Lincoln. The survey periodically includes questions on broadband subscription and use. Here are some highlights from the 2018 Nebraska Rural Poll:

- Eighty-four percent of rural Nebraskans report subscribing to high-speed Internet service at home, about the same as in 2016. Seven percent say they only use their cell phone data plan. Eight percent do not subscribe to any Internet service at home and do not have a cell phone data plan. One percent have only dial-up Internet service.
- The proportion of rural Nebraskans accessing the Internet using their cell phone has increased compared to two years ago. Just over three-quarters of rural Nebraskans access the Internet using their cell phone (77%), up from 70 percent in 2016.
- At least one in ten respondents report being limited significantly or not being able to play real time video games or stream online video content such as Netflix.
- Six in ten rural Nebraskans are using the Internet to save money and approximately one-third are generating income by occasionally buying or selling items online.

The report is available at <https://ruralpoll.unl.edu/pdf/18economicdev.pdf>

Gauging the Digital Readiness of Nebraska Households

The University of Nebraska partnered with Purdue University to conduct a Digital Readiness Survey in 2018. Here are some highlights from the Digital Readiness Survey:

- Nearly three out of four Nebraskans surveyed reported economic benefits from using the internet with approximately 70 percent of respondents saving money online through bargains, coupons or price matching. Additionally, one quarter of Nebraska households earned money online by selling, freelancing, or renting
- There is no significant difference between urban and rural households regarding digital resourcefulness, internet utilization, and internet impacts & benefits. However, rural Nebraskans are more likely to face device and internet limitations than metropolitan Nebraskans, with rural Nebraskans more likely to rely on mobile broadband or to use the library for broadband access. Rural Nebraskans are also more likely to report being without internet service or having smartphone issues for five or more days within the past year.

The report will be available online shortly.

State Medicaid Health Information Technology Plan

The 2018 State Medicaid Health Information Technology Plan included data from a survey of eligible providers. The survey found:

- 12% of rural Eligible Provider respondents who indicated that limited broadband availability was a barrier to purchasing a certified electronic health record.
- 16 % of rural Eligible Provider respondents who indicated that limited broadband availability was a barrier to participating in a health information exchange.

The plan is available at

<http://dhhs.ne.gov/medicaid/Documents/State%20Medicaid%20Health%20Information%20Technology%20Plan.pdf>