

RURAL BROADBAND TASK FORCE

Friday, March 29, 2019, 9:30 a.m. to 12:00 noon C
August N. Christenson Research and Education Building
Eastern Nebraska Research and Extension Center
1071 County Road G, Ithaca, NE 68033

MINUTES

MEMBERS PRESENT:

Ed Toner, Chair, Nebraska Information Technology Commission
Mary Ridder, Chair, Nebraska Public Service Commission
Senator Curt Friesen, District 34, Chair, Transportation and Telecommunications Committee, Nebraska Legislature
Senator Bruce Bostelman, District 23, Nebraska Legislature
Ben Kuspa for Dave Rippe, Nebraska Department of Economic Development
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
Andrew Buker, Executive Director of Infrastructure Services, University of Nebraska Ron Cone, Director of Network Information Services, ESU 10

Members Absent: Steve Wellman, Isaiah Graham, and Anna Turman

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 9:30 a.m. Roll call was taken. There were nine voting and two ex officio non-voting members present. A quorum existed to conduct official business. The meeting announcement was posted on the Nebraska Public Meeting and Rural Broadband Task Force websites on December 3, 2018. The agenda was posted on the Rural Broadband Task Force website on March 22, 2019. The Nebraska Open Meetings Act was located next to the recording secretary at the front of the room.

APPROVAL OF THE FEBRUARY 25, 2019 MINUTES*

Ed Toner, Office of the Chief Information Officer

Mary Ridder moved to approve the February 25, 2019 minutes as presented. Mr. Spray seconded. Roll call vote: Toner-Yes, Ridder-Yes, Kuspa-Yes, Hunnicutt-Yes, Shoemaker-Yes, Spray-Yes, Lindahl-Yes, Buker-Yes, and Cone-Yes. Results: Yes-9, No-0, Abstained-0. Motion carried.

AGRICULTURAL TECHNOLOGY AND BROADBAND: DIRECT MARKETING BEEF

Hannah Raudsepp, Honestbeef.com

Ms. Raudsepp provided a brief history of her family business. After graduating from Creighton University, she moved to Boston where she met her husband. It was during this time, she realized the huge disconnect between agricultural producers and those who eat their products and started direct marketing beef. She and her husband moved back to Nebraska to help with the family business. Broadband was critical in making it possible for Ms. Raudsepp and her husband to move back to the Sandhills. Ms. Raudsepp and her husband have also hosted discussions local community members and friends from Boston via video on social issues. This has enriched their small community. Task Force members were given an opportunity to ask questions.

REPORTS FROM TASK FORCE SUBCOMMITTEES

Broadband Data Subcommittee. Subcommittee members include Senator Bruce Bostelman, Dan Spray, Anna Turman, and Andrew Buker. Mr. Spray reviewed the subcommittee report findings with the task force. The subcommittee was asked to answer the following questions:

- **What data do we currently have?** Nebraska's [broadband map](#) currently utilizes Form 477 data released by the FCC. Providers of fixed broadband report the type of technology and maximum advertised speeds by census block to the FCC. Mobile wireless providers provide polygons of their service area and the minimum speeds that are publicly available. There are also several sources of speed test data which could potentially supplement data submitted by providers.
- **What data do we need?** The Broadband Data Subcommittee agreed that data on where fixed broadband is currently being provided, at what speeds, and with what technology at a level which is more granular than census block reporting is needed annually.
- **How can we get the data we need but don't have?** The Broadband Data Subcommittee identified the following strategies which may be utilized to develop an address level data and mapping program for fixed broadband providers:
 - Collecting address level data from providers annually
 - Leveraging the NextGen 911 address point database
 - Leveraging federal or national data collection efforts if possible
 - Supplementing address level data from providers with additional sources of data

USTelecom announced a broadband mapping pilot with Missouri and Virginia on March 21, 2019. This mapping initiative could potentially address many of the issues the subcommittee has identified. The pilot is expected to be completed in 4-6 months. The Subcommittee would like to review its recommendations after results of the pilot are available.

Mr. Hunnicutt moved to approve the initial findings of the Rural Broadband Task Force's Broadband Data Subcommittee Report and to direct the Broadband Data Subcommittee to present final recommendation to the task force later this fall. Mr. Shoemaker seconded. Roll call vote: Hunnicutt-Yes, Shoemaker-Yes, Spray-Yes, Lindahl-Yes, Buker-Yes, Cone-Yes, Toner-Yes, Ridder-Yes, and Kuspa-Yes. Results: Yes-9, No-0, Abstained-0. Motion carried.

Public-Private Partnerships Subcommittee. Subcommittee members include Tom Shoemaker and Tim Lindahl. Mr. Shoemaker reported that the subcommittee identified public-private partnership models and made several recommendations. Recommendations included:

- **Encouraging local and regional broadband planning.** Each community, county or region is different and will likely require a unique solution. Bringing stakeholders together to develop a local, county or regional plan can lay the groundwork for public-private partnerships.
- **Exploring the creation of a statewide broadband association.** The association could include telecommunications providers, public power districts, schools, hospitals, municipalities, counties, and other stakeholders interested in advancing broadband in Nebraska. The association could convene regional and statewide discussions and develop and distribute resources such as model or sample agreements.
- **Removing barriers to public-private partnerships.** A couple of possible barriers have been identified by stakeholders. Neb. Revised Statutes Section 86-577 places restrictions on leasing of dark fiber by public entities. Public power providers have stated that this could be a barrier. Legislation clarifying communications as an approved use for private easements set up for telephone and electric use would also eliminate uncertainty and litigation over this issue.

- **Identify funding for public-private partnerships.** Possible funding sources for public-private partnerships include LB 840 funds, USDA broadband grants and loans, Community Reinvestment Act, and New Market Tax Credits. Additional sources of funding such as a state broadband grant program would facilitate the development of public-private partnerships. Approximately 25 states have created broadband grant funds.

Mr. Spray moved to approve the findings and recommendations of the Public-Private Partnerships Subcommittee for inclusion in the task force's final report and to direct the subcommittee to continue to work to identify barriers and recommendations to address these barriers. Mr. Buker seconded. Roll call vote: Hunnicutt-Yes, Shoemaker-Yes, Spray-Yes, Lindahl-Yes, Buker-Yes, Cone-Yes, Toner-Yes, Ridder-Yes, and Kuspa-Yes. Results: Yes-9, No-0, Abstained-0. Motion carried.

Due to time constraints, the reports of the Broadband Technologies and NUSF Subcommittees were postponed until the next meeting by group consensus.

TOPICS FOR MAY MEETING

Ed Toner, Office of the Chief Information Officer

Mr. Toner stated that the Rural Broadband Task Force is making good progress, but that there is one final charge to the task force. That charge is to “recommend state policies to effectively utilize state universal service fund dollars to leverage federal universal service fund support and other federal funding.” That will be on the agenda for the next meeting on May 3. Mr. Toner asked members to let Ms. Byers know if they have recommendations for speakers for a panel on this issue. Andrew Buker also suggested including the homework gap on the agenda for the next meeting.

The meeting proceeded with the following informational presentations on agricultural technology and broadband:

- **ENREC and Microsoft Corporation/IANR Precision Ag Project Update, Doug Zalesky.** The Eastern Nebraska Research and Extension Center (ENREC) has 9,600 acres. Half of the acres are used for crops. The other half is used for pasture or hay. ENREC's vision is to have wireless connectivity to all acres. ENREC would like to do more precision livestock production, but there is limited wireless coverage to implement some of the technologies. ENREC has been working with Microsoft's Airband initiative. Unfortunately, due to the proximity to Omaha and Lincoln, the spectrum necessary for a TV white space test is not available. Microsoft is currently looking at other possible technologies.
- **Precision Agriculture, Joe Luck.** The future of crop management will be predictive, highly automated, and action-focused. In one study, the use of precision agriculture technologies saved 50 pounds of nitrogen per acre. In the future, higher speed data transmission; cloud storage and computing tools; and test beds for automated, data-driven solutions will be needed.
- **Plant Phenotyping Research, Hector Santiago.** The University of Nebraska has a Spidercam to collect phenotype data on crops. The system is the only one in the U.S. The spider camera can carry 30 kilograms of imaging equipment, including spectrometer, thermal infrared, Lidar, and Visible RGB, and Near Infrared cameras. Researchers physically move the data to the Holland Supercomputer center.
- **UAV Research, Wayne Woldt.** It has been legal to fly unmanned aircraft since 2016. In January the University of Nebraska received approval for spray testing. Sensors can be carried for early detection of moisture stress, irrigation management. The drone collects 22 GB per 160 acres. Data is transmitted via the “sneaker method.”

A working lunch was provided to continue discussions with the presenters and to entertain questions from the task force members.

ADJOURNMENT

With no further business, Mr. Toner, adjourned the meeting. The meeting was adjourned at 12:44 p.m.

The meeting was followed by a demonstration of Unmanned Aerial Vehicles (UAVs).

The minutes were taken by Lori Lopez Urdiales and reviewed by Anne Byers, Office of the CIO/NITC.