# Nebraska Information Technology Commission Community Council

Thursday, November 12, 2020 1526 Building, 1526 K Street, Lincoln 2nd Floor Conference Room B 1:30 P.M. CT – 3:00 P.M. CT

Zoom Videoconferencing -E-mail anne.byers@nebraska.gov for connection information

#### **Tentative Agenda**

1:30	Roll Call Notice of Posting of Agenda Notice of Nebraska Open Meetings Act Posting Review Minutes of May 29, 2020 meeting Public Comment
1:35	NROC and Economic Development Districts Broadband Planning— <i>Tom Bliss and Judy Petersen</i> Rural Broadband Remote Access Grants Update— <i>Nichole Reiner</i> PSC Updates— <i>Cullen Robbins and Commissioner Ridder</i> Rural Broadband Task Force Update— <i>Anne Byers and Commissioner Ridder</i> • Precision Ag Demo
	Broadband Case Studies Next Steps Homework Gap and Library Broadband Update (2:00)—Tom Rolfes and Holly Woldt Rural Measures (2:30)—Tim Obermier and Angela Hollman Other Updates
3:00	Adjourn

The Community Council 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 notices were posted on the Public Meeting and NITC websites on Oct. 28, 2020. Agenda posted on the NITC Website on Oct. 28, 2020. \*Denotes action item.

#### Nebraska Information Technology Commission Community Council Friday, May 29, 2020 9:30 A.M. CT – 11:00 A.M. CT Zoom Videoconferencing

#### **MINUTES**

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

**Members Present:** Pam Adams, Chris Anderson, Jay Anderson, Rod Armstrong, Randy Bretz, Jessica Chamberlain, Steve Fosselman, Connie Hancock, Johnathan Hladik, Nichole Reiner for Allison Hatch, Tim Lindahl, Judy Petersen, Mary Ridder, Danny Rockhill, Mehmet Can Vuran, Holly Woldt and David Young.

Members Absent: Shonna Dorsey and Megan McGown

The meeting was called to order by co-chair Rod Armstrong at 9:30 a.m. Seventeen members were present, making a quorum. Meeting notices were posted on the Public Meeting and NITC websites on May 22, 2020. The agenda was posted on the NITC Website on May 22, 2020. A copy of the Nebraska Open Meetings Act was available at

https://nitc.nebraska.gov/documents/statutes/NebraskaOpenMeetingsAct\_current.pdf.

#### PUBLIC COMMENT

There was no public comment.

#### **APPROVAL OF FEBRUARY 19, 2020 MINUTES**

Johnathan Hladik made a motion to approve the February 19, 2020 minutes. Pam Adams seconded the motion.

Roll call vote: Adams-Yes, C. Anderson-Yes, J. Anderson-Yes, Armstrong-Yes, Bretz-Yes, Chamberlain-Yes, Fosselman-Yes, Hancock-Yes, Hladik-Yes, Reiner-Yes, Lindahl-Yes, Petersen-Yes, Ridder-Yes, Rockhill-Yes, Vuran-Abstaining, Woldt-Yes, Young-Abstaining. Results: Yes-15,, No-0, Abstaining-2. Motion carried.

#### INTRODCUCTIONS AND MEMBERSHIP

Nichole Reiner, chief strategist for the Nebraska Department of Economic Development, has been nominated to represent the Nebraska Department of Economic Development. She introduced herself to members and members also introduced themselves.

Jay Anderson made a motion to approve the nomination of Nichole Reiner. Tim Lindahl seconded the motion.

Roll call vote: Adams-Yes, C. Anderson-Yes, J. Anderson-Yes, Armstrong-Yes, Bretz-Yes, Chamberlain-Yes, Fosselman-Yes, Hancock-Yes, Hladik-Yes, Reiner-Yes, Lindahl-Yes, Petersen-Yes, Ridder-Yes, Rockhill-Yes, Vuran-Yes, Woldt-Yes, Young-Yes. Results: Yes-17, No-0, Abstained-0. Motion carried.

#### **Updates**

**Nebraska Department of Economic Development.** Nichole Reiner shared information on a \$40 million broadband grant program announced by Governor Ricketts. The grant program is funded by the CARES Act and will provide funding to improve broadband so residents can work at home, participate in online learning and access health care through telehealth. More details will be available at a later date.

Chris Anderson asked about community eligibility and shared his experience with having a provider say that they were planning to build out infrastructure in the community to provide broadband, but not following through. Their promise to build out discourages other providers from offering service.

**Nebraska Public Service Commission (PSC).** Commissioner Ridder and Cullen Robbins gave the following updates:

- The PSC approved an E-Rate Special Construction Matching Program for schools and libraries which do not have fiber.
- The PSC also approved a \$1 million broadband adoption program to reimburse telecommunications carriers for providing service to low-income families as a part of the response to the COVID-19 emergency.
- The docket to explore implementing a reverse auction of Nebraska universal service funds is moving forward. Draft rules are in place and a hearing was held in May.
- The PSC is looking at opening a docket to look at modernizing the contribution method for business connections to the Nebraska Universal Service Fund. Residential consumers now pay a \$1.75 per connection surcharge. Businesses still pay a surcharge of 6.95%.
- The FCC has moved back the date of the Rural Digital Opportunity Fund reverse auction by one
  week.
- Commissioner Ridder toured the Valentine area to view CenturyLink's progress on rebuilding the exchange with fiber.

**Homework Gap and Library Update.** Holly Woldt reported that libraries are excited about the NUSF 117 E-Rate Special Construction Matching Program. Ninety-one libraries have been identified as unserved or underserved. The Nebraska Library Commission is working to prepare libraries for the program, including evaluating what updates may need to be made to the library's network equipment.

The Nebraska Library Commission received \$175,000 in funding from the CARES Act. The funds will be awarded to libraries by July 1.

**AIM Code School.** Rod Armstrong shared that AIM has successfully moved its code school courses online in response to the COVID-19 pandemic. Ten students at Omaha South have been participating in the program. Two students were selected for internships as Union Pacific. AIM is also providing custom corporate training to upscale call center employees to programmers. The program is called Callers to Coders.

**Broadband Case Studies.** Anne Byers gave an update on the broadband case studies. Eight case studies showing strategies and models that communities can use to improve broadband availability are being developed. The case studies include Gothenburg, Seward County, Ravenna, Lincoln, Norfolk, Imperial, Paige Wireless, and Lancaster County. Members liked the case studies Jay Anderson suggested Stealth Broadband would also be a good case study.

#### **ACTION ITEMS\***

Ms. Byers explained that the NITC is beginning the process of updating the Statewide Technology Plan. Each NITC advisory council is asked to submit one or more action items to be included in the Statewide Technology Plan. The community council approved the following action item in February:

Work with the Nebraska Department of Economic Development and other stakeholders to explore the development of a collaborative broadband outreach effort.

Lead: NITC Community Council and Nebraska Department of Economic Development

Timeframe: 2020-2021

Funding: Leveraging existing resources

Anne. Byers asked council members to more fully flesh out the above action item. She also suggested including an action item on the case studies:

Develop a series of case studies illustrating successful strategies and models that communities can use to improve broadband.

Lead: NITC Community Council

Timeframe: 2020

Funding: Leveraging existing resources

Targets/Deliverables:

1. A booklet of at least 8 case studies

2. A marketing/social media plan to share information on the case studies

Judy Peterson suggested reaching out to the directors of the economic development districts because they are the boots on the ground. Charlotte Narjes and Connie Hancock suggested reaching out to the University of Nebraska Community Vitality Educators. Ms. Byers also suggested reaching out to the League of Nebraska Municipalities.

Randy Bretz suggested writing a series of stories focusing on the impact of broadband. He offered to help write articles and asked members for suggestions of people to interview.

As it was already nearly 11:00, Rod Armstrong suggested that Ms. Byers share a draft of action items with members via e-mail.

#### **ADJOURNMENT**

With no other business, the chair adjourned the meeting at 11:00 a.m.

Meeting minutes were prepared Anne Byers.

# Gov. Ricketts Announces Recipients of Rural Broadband Grants

October 8, 2020

Today, Governor Pete Ricketts announced the award of more than \$29.5 million in funding under the Remote Access Rural Broadband Grant program, administered by the Nebraska Department of Economic Development (DED).

"These grants will lead to better broadband service in many areas of the state that are currently underserved," said Gov. Ricketts. "The enhanced service will equip more of our rural communities with the technology needed to conduct business online, make virtual health visits, and engage in distance learning opportunities."

The Broadband program was one of four grants designed and administered by DED this year to support the state's economic recovery in the wake of the coronavirus pandemic.

"COVID-19 has underscored the need for a more concentrated, collaborative effort to improve our state's broadband infrastructure," said DED Director Anthony L. Goins. "This grant is an important first step toward ensuring all citizens of Nebraska have the opportunity to participate in the digital economy."

The Broadband grant opportunity—made possible by federal CARES Act funding, including \$1.08 billion of Coronavirus Relief funds allocated to the State of Nebraska—was announced by DED last spring. The grants target areas of the state where high speed internet service is nonexistent or subpar based on the FCC standard of 25/3 Mbps download/upload speeds.

When all projects are completed, a minimum of 17,600 housing units will gain the ability to subscribe to broadband internet service. Most of the projects being awarded are scheduled for completion by the end of the year, with controls in place to ensure agreements are executed as planned in a timely manner.

The recipients of the Rural Broadband Remote Access Grants are listed below:

## **2020 Remote Access Rural Broadband Recipients**

RDOF = Rural Digital Opportunity Fund

Units Approved = Minimum housing units newly capable of subscribing to broadband following project completion.

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Awardee	Project Area	Grant Amount	Units Approved
ATC Communications	Arapahoe	\$512,000	169
Bluestem Network LLC	Pleasant Dale (Rural RDOF Area)	\$658,965	223
Charter Communications, Inc.	Brule	\$141,400	186
Consolidated Telephone Company, Inc.	Dunning (Rural)	\$39,694	12
Consolidated Telephone Company, Inc.	Hyannis (Rural)	\$151,734	25
Consolidated Telephone Company, Inc.	Seneca (Rural)	\$151,145	19
Country Mile Wireless, Inc	Cedar Creek	\$89,439	100
Country Mile Wireless, Inc	Cedar Creek (Rural RDOF Area)	\$138,605	100

Diode Communications	Beatrice (Pioneer Acres)	\$117,000	26
Diode Communications	Beatrice (Rural Southwest RDOF Area)	\$756,000	90
Diode Communications	Holmesville	\$130,786	31
USA Communications, LLC	Atkinson	\$580,798	638
USA Communications, LLC	Buffalo County (Block Group 1 – RDOF Area)	\$1,441,000	400
USA Communications, LLC	Buffalo County (Block Group 4 – RDOF Area)	\$400,720	116
USA Communications, LLC	Elwood	\$281,206	361
USA Communications, LLC	Kearney (Antelope Ridge Development)	\$173,410	89
Glenwood Telecommunications, Inc.	Franklin	\$724,500	483
Glenwood Telecommunications, Inc.	Franklin (RDOF Area)	\$554,657	128
Glenwood Telecommunications, Inc.	Guide Rock	\$403,443	28
Great Plains Communications	Callaway	\$650,753	384

Great Plains Communications	Creighton	\$1,707,081	748
Great Plains Communications	Deshler	\$744,641	475
Great Plains Communications	Gordon	\$1,507,733	1,009
Great Plains Communications	North Bend	\$1,142,709	768
Great Plains Communications	Red Cloud	\$2,018,372	796
Great Plains Communications	Sutherland	\$1,134,424	608
Hamilton Telecommunications	Merrick County	\$687,500	250
Infinity 8 Broadband	Rural Hickman	\$147,279	68
Inventive Wireless of Nebraska, LLC dba Vistabeam	Banner County	\$183,248	125
Inventive Wireless of Nebraska, LLC dba Vistabeam	Chase County	\$207,885	225
Inventive Wireless of Nebraska, LLC dba Vistabeam	Cheyenne County	\$228,044	140
Inventive Wireless of Nebraska, LLC dba Vistabeam	Deuel County	\$131,178	200

Inventive Wireless of Nebraska, LLC dba Vistabeam	Garden County	\$195,613	200
Inventive Wireless of Nebraska, LLC dba Vistabeam	Kimball County	\$168,316	180
Inventive Wireless of Nebraska, LLC dba Vistabeam	Morrill County	\$147,245	125
Inventive Wireless of Nebraska, LLC dba Vistabeam	Perkins County	\$198,229	225
Inventive Wireless of Nebraska, LLC dba Vistabeam	Scotts Bluff County	\$396,563	450
Media King Communications	Масу	\$115,954	230
Mobius Communications Company	Alliance (Westside Event Center)	\$52,800	4
Mobius Communications Company	Alliance Airport	\$122,720	26
Mobius Communications Company	Box Butte (RDOF Area)	\$308,000	22
Mobius Communications Company	Box Butte County	\$272,000	23
Mobius Communications Company	Dawes County (RDOF Area)	\$320,000	26

NE Colorado Cellular, Inc.	Champion	\$639,794	50
Pinpoint Communications Inc.	Alma	\$672,760	700
Pinpoint Communications Inc.	Alma (Rural RDOF Area)	\$216,592	143
Pinpoint Communications Inc.	Beaver City	\$395,758	435
Pinpoint Communications Inc.	Beaver City (Rural RDOF Area)	\$355,008	132
Pinpoint Communications Inc.	Orleans (Rural RDOF Area)	\$238,896	159
Pinpoint Communications Inc.	Republican City	\$271,520	227
Pinpoint Communications Inc.	Republican City (Rural RDOF Area)	\$261,664	256
Skywave Wireless, Inc.	Tri-County (Cuming, Dodge, Burt)	\$531,397	543
Spiral Communications	Union (Lake Waconda)	\$34,536	220
Three River Telco	Ainsworth	\$408,500	1,120
Three River Telco	O'Neill	\$350,000	2,073
Windstream Nebraska, Inc.	Rural Ashland	\$1,275,499	345

	Total	\$29,528,62 0	17,600
Windstream Nebraska, Inc.	Rural Louisville	\$1,307,901	239
Windstream Nebraska, Inc.	Rural Hebron	\$650,957	145
Windstream Nebraska, Inc.	Rural Geneva	\$880,752	244
Windstream Nebraska, Inc.	Rural Garrison	\$802,295	38

Visit <u>opportunity.nebraska.gov</u> and <u>getnebraskagrowing.nebraska.gov/broadband-grant</u> for more info. To learn more about how Nebraska's federal Coronavirus Relief funds are being used, visit <u>coronavirus.nebraska.gov/relief-fund</u>.

## Precision Ag Demo Oct. 15, 2019 Key Takeaways

The use of monitors/sensors in agriculture is still in the early adoption phase with only about 10-15% of agricultural producers widely using these technologies. Roric Paulman is one of the early adopters and uses about 100 apps on 80 fields. "A Day at Roric's: Connecting the Acre" is at <a href="https://www.youtube.com/watch?v=7Dmth6Qkpdl">https://www.youtube.com/watch?v=7Dmth6Qkpdl</a>

**Real-time data is needed for decision-making.** Data on precipitation received can result in significant savings by reducing irrigation. Producers also need real-time data on wind speed and direction and documentation in order to spray dicambra.

**Connectivity and precision farming is driven by ROI.** Roric Paulman estimates his ROI is \$35 per acre with much of the ROI coming from marketing.

Precision Farming generates huge amounts of data.

**25/3 broadband is not adequate for precision agriculture.** Upload speeds of 30 Mbps or greater are needed.

Different methods of connectivity will likely be required.

- **Fiber to or near farm operations will likely be needed.** The Paulman Farm paid to have fiber installed to the farm and subscribes to 30 Mbps symmetrical service. They also can increase their bandwidth to 100/100 for events. The Smith Farm uses a point to point connection from a wireless provider using a Custer Public Power tower. Great Plains has fiber to the tower.
- Low-cost, low bandwidth connectivity is needed for connecting sensors and devices.

  LoRaWAN (Long Range Wide Area Network) is a low power networking protocol designed to connect battery-operated sensors and other devices to the internet. The cost to connect a device is approximately \$2 per device per month. It may be best suited for single sensor devices. LoRaWAN is not line of sight and can work like a mesh network.
- Cellular or Wi-Fi connectivity may be needed for devices requiring greater bandwidth. One of the weather stations at the Smith Farm used LTE. The Paulman Farm has vehicles with cellular connectivity.

**Nebraska will be the first state to have a statewide LoRaWAN network**. Paige Wireless has deployed LoRaWAN across 70% of Nebraska. It will be deployed to the entire state by the end of this year.

Partnerships with public power and telecommunications providers have enabled Paige Wireless to deploy its network.

- Paige Wireless's deployment has utilized some of Custer Public Power's towers. Custer Public
  Power has partnered with Nebraska Central Telephone, Consolidated and Great Plains to
  connect substations and towers. Working with telecommunications providers has helped foster
  a public-private partnership mindset.
- Big Red Communications is leading an effort to form a cooperative of local wireless internet service providers (WISPs). The cooperative is supporting Paige Wireless's deployment. Twelve

- providers have submitted letters of intent to participate in the Nebraska Cooperative of Internet Service Providers (NCISP). Participating providers will leverage shared resources. The cooperative will also utilize service level standards and provide accountability.
- For the Arnold deployment, the NCISP and Paige Wireless utilized Great Plains Communications' existing fiber to extend additional wireless offerings and high-speed internet service to surrounding agricultural operations.

Twin Platte Natural Resource District is using the LoRaWAN network and sensors to enable ground water management.

Young adults are demanding connectivity.

**Precision farming requires the ability to analyze data and technology integration.** Schools may need to adapt to develop a workforce with these skills.