

July/August 2016

Nebraska Broadband

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Poll finds increased mobile, home broadband adoption in rural Nebraska

Eighty-two percent of rural Nebraskans subscribe to broadband at home, and 70 percent of rural Nebraskans access the internet using their cell phones according to a new report by the Institute of Agriculture and Natural Resources at the University of Nebraska Lincoln. The report details 1,746 responses to the 2016 Nebraska Rural Poll, the 21st annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about Internet services. Some key findings emerged:

Most rural Nebraskans use their cell phone to access the internet. Seventy percent of rural Nebraskans access the internet using their cell phones. Rural Nebraskans with the highest household incomes, who are younger, married, with higher education levels and with management or professional occupations are the groups most likely to access the internet using their cell phone.

70%
of rural Nebraskans
access the Internet
using their cell phones

Overall, most rural Nebraskans using mobile/cellular Internet service are satisfied with their service. Furthermore, most rural Nebraskans are satisfied with the reliability, speed, customer service, and coverage of their mobile internet service. However, most rural Nebraskans using mobile internet service are dissatisfied with the price of their service.

Persons with healthcare support or public safety occupations are more likely than persons with different occupations to report being satisfied with the reliability of their mobile internet service. Seventy percent of persons with healthcare support or public safety occupations are satisfied with the reliability of their mobile internet service. However, only 39 percent of persons with occupations in agriculture are satisfied with the reliability of their mobile internet service.

Most
rural Nebraskans
are satisfied
with their home broadband
and mobile internet service

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bility of their mobile internet service. In fact, over one-half (52%) of persons with occupations in agriculture are dissatisfied with the reliability of their mobile internet service.

Persons living in or near the largest communities are more likely than persons living in or near the smallest communities to report satisfaction with the speed of their mobile internet service. Approximately two-thirds (67%) of persons living in or near communities with populations of 10,000 or more are satisfied with the speed of their mobile internet service, compared to 43 percent of persons living in or near communities with less than 500 people.

82%
of rural Nebraskans
subscribe to broadband

Persons living in the South Central region are more likely than persons living in other regions of the state to be satisfied with the coverage of their mobile internet service. Seventy-three percent of persons living in the South Central region are satisfied with the coverage of their mobile internet service, compared to 55 percent of persons living in the Northeast region of the state.

Over eight in ten rural Nebraskans subscribe to a high-speed internet service at home (such as cable Internet, DSL, fiber optic or satellite Internet service) other than a data plan on their cell phone or tablet. Eighty-two percent of rural Nebraskans report subscribing to high-speed internet service at home. Six percent say they only use their cell phone data plan. Nine percent do not subscribe to any internet service at home and do not have a cell phone data plan. Two percent have only dial-up internet service.

9%
of rural Nebraskans
do not subscribe
to any internet service

Rural Nebraskans living in or near larger communities, with higher household incomes, who are younger, who are married, with higher education levels and with occupations classified as other are the groups most likely to subscribe to high-speed internet services at home.

Most rural Nebraskans with home internet service are satisfied with their service overall. Furthermore, most rural Nebraskans with home internet service are satisfied with the reliability, speed and customer service of their home service. However, most rural Nebraskans with home internet service are dissatisfied with the price of their service.

Persons living in or near larger communities are more likely

than persons living in or near smaller communities to report satisfaction with the speed of their home internet service. Sixty-three percent of persons living in or near communities with populations of 10,000 or more are satisfied with the speed of their service, compared to 44 percent of persons living in or near communities with populations less than 500.

Panhandle residents are more likely than residents of other regions of the state to be satisfied overall with their home internet service. Just over two-thirds (68%) of Panhandle residents are satisfied overall with their home service, compared to 51 percent of residents of the Northeast region.

Most rural Nebraskans see value in having high-speed internet access for various items. Over seven in ten rural Nebraskans feel having high-speed internet access is important or very important for the following items: searching for/applying for jobs, children's education and learning new things.

Younger persons are more likely than older persons to think having high-speed internet access is important for monitoring or managing health care. Just over one-half (55%) of persons age 19 to 29 think high-speed internet access is important for monitoring or managing health care, compared to 36 percent of persons age 65 and older.

The report is available at <http://ruralpoll.unl.edu/pdf/16broadband.pdf>.

Program brings web development training, support to unemployed

On July 20, 2016, BCom Solutions and Interface Web School introduced JumpstartLabs—a collaboration between BCom Solutions and Interface Web School to bring web development opportunities to rural and remote communities throughout the state.

JumpstartLabs is an employment program designed for CONNECT grant recipients. CONNECT, a federally funded grant program managed by the Nebraska Department of Labor, was created to provide Nebraska's unemployed and underemployed population with the training, funding and support necessary to reenter the IT workforce.

BCom and Interface have united to offer the education, skill-sets and experience participants need to begin their new web development careers. JumpstartLabs will combine the Interface educational experience with on-the-job training provided by a BCom Solutions paid web development internship.

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Interface Web School offers a part-time web developer training boot camp established to train future tech professionals. Interface hires talented and dedicated web developers to facilitate the training courses with an emphasis on the student course experience and learning outcomes.

Those accepted into the program will complete coursework remotely from Interface Web School during one half of the day and will spend the rest of the working day in an internship/apprenticeship program with BCom Solutions.

“JumpstartLabs is the next step in the important story BCom Solutions has been sharing for the past several years: bringing 21st century careers and technology to rural areas throughout the state,” said Brent Comstock, CEO and founder of BCom Solutions.

To participate in the program, applicants must have been approved for the CONNECT grant from the State of Nebraska. To find out if you qualify for the CONNECT grant program, please visit the eligibility page on the following website: www.connectnebraska.org. After receiving confirmation, grant recipients should visit the JumpstartLabs website to apply: www.jumpstartlabs.co/

Those accepted into the program will complete coursework remotely from Interface Web School during one half of the day and will spend the rest of the working day in an internship/apprenticeship program with BCom Solutions. The program will be based out of BCom Solutions’ Lincoln office, located in the Nonprofit Hub. The course runs from Sept. 12 through Oct. 27.

Broadband is game changer for Nebraska City’s public library

By Holly Woldt, Nebraska Library Commission

The possibility of high-speed internet to the home in small Nebraska communities has become a reality. Equally exciting are the partnerships that are occurring between internet providers and public libraries in Nebraska communities. In 2013 Nebraska City identified the need for faster broadband and selected Spiral Communications to build a fiber



Morton-James Public Library in Nebraska City subscribes to broadband at a rate of 50 Mbps.

optic network that delivers internet speeds up to 1 gigabit per second.

Nebraska City was the first community in Nebraska to receive high-speed internet provided by Spiral Communications. Currently, Spiral Communications is two years into the fiber to the premise project in Nebraska City. Service is available to many homes and businesses in phase one that includes the downtown business district. Expansion will continue based on the community’s demand and need.

Rasmus Thøgersen, Library Director at the Morton-James Public Library in Nebraska City, said the connection to fiber at the library has been a game-changer as far as the library’s ability to serve the community’s needs.

The Morton-James Public Library in Nebraska City has been able to bring fiber to the library which is located in the downtown business district in Nebraska City. Rasmus Thøgersen, library director at the Morton-James Public Library in Nebraska City, said the connection to fiber at the library has been a game-changer as far as the library’s ability to serve the community’s needs. Since 2015 the library has

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subscribed to a rate of 50 Mbps and has the infrastructure to increase its speed to 1 gigabyte. Prior to the fiber connection through Spiral Communications the library subscribed to a 1-1.5 Mbps connection.

Thoegersen's game-changer statement has credibility when you look at the types of activities and demand for Wi-Fi use at the library.

The Morton-James Public Library has 15 desktop computers available for patrons to use. Thoegersen says that these desktop computers connected to the internet are not the primary way patrons access the internet. He said patrons primarily bring their own devices to the library to connect to the high speed internet via Wi-Fi. This trend, *Bring Your Own Device*, is very common in Public Libraries across the country. Thoegersen is able to keep track of the library's Wi-Fi usage through monthly reports he has access to from Spiral Communications.

Thoegerson says that there's definitely an increase in *Bring Your Own Device* type of use at the library. Patrons are coming into the library to use Overdrive (e-book lending) to download books at a much faster speed than they can at home to their personal devices.

Training and learning opportunities organized through partnerships with Southeast Community College, online training for pre-school teachers and self-paced learning for patrons to use the license the library has for Lynda.com opens up unlimited opportunities for community members.

Thoegersen said that the ability to offer consistent high speed internet and online resources—like the Apollo Catalog (online lending catalog for Public Libraries), Lynda.com (online learning company), Overdrive and collaborative platforms in the cloud—makes the library a community hub and inspires confidence in the community for its residents. Thoegersen added that the fiber connection is also a quality of life attribute that is important to businesses that are considering locating in Nebraska City.

Spiral Communications delivers fixed wireless and fiber optic broadband to 30 communities in Nebraska, Iowa and South Dakota. Of those communities, Spiral is in the process of expanding in Nebraska City, Beaver Lake (Plattsmouth) and Murray, Nebraska. Spiral plans to expand in many other Nebraska communities in 2017. Updates can be found on their website (spiralfiber.com).

Nikki Hein, Marketing Manager, Spiral Communications said "We're passionate and proactive about building a gigabit network in Nebraska City. We understand the community's current and future technology needs and believe our

network will help retain families and attract businesses by enhancing the quality of life."

Thoegersen agrees with Hein. He is eager to continue building partnerships between the library and other organizations to serve the Nebraska City community.

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NeHII celebrates milestones as health information exchange grows



Over 100 health care providers and other stakeholders attended the Nebraska Health Information Initiative (NeHII) Annual Meeting on August 4 at CHI St. Elizabeth in Lincoln. NeHII facilitates the exchange of health information among participating health care providers in Nebraska and western Iowa.

Senator Sara Howard was honored as the recipient of the Visionary Leader in Health Information Exchange Award for her work in advancing prescription drug monitoring and other health care initiatives.

Dr. Michael Westcott, president of NeHII Board of Directors, shared some of the highlights of the past year, including:

- Adding a record-setting 678 new users in the first quarter of 2016
- Expanding single sign-on offerings with 8 facilities currently using single sign-on. The implementation of single sign on has led to increased usage of NeHII.
- Adding the first independent lab, Physicians Lab, as a NeHII data provider in April 2016.
- Sending readmission reports to 31 hospitals.

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SRI report assesses Nebraska's economic development ecosystem

On July 12, 2016, Governor Pete Ricketts unveiled a report on Nebraska's economic development programming at the Governor's Summit on Economic Development in Lincoln. The summit focused on results generated by SRI International, a nonprofit, independent research center that was hired late last year to provide an assessment of Nebraska's economic development ecosystem. SRI also performed a high-level assessment of Nebraska's innovation ecosystem and identified gaps and opportunities that the state can target for future investment.

“We are fortunate to be able to look at this research while the state's economy is performing well. It provides us a great opportunity to put in place the programs and initiatives we need to attract and grow the high tech, high growth companies that provide high skilled, high pay jobs.”

—Courtney Dentlinger

“We are fortunate to be able to look at this research while the state's economy is performing well,” said DED Director Courtney Dentlinger. “It provides us a great opportunity to put in place the programs and initiatives we need to attract and grow the high tech, high growth companies that provide high skilled, high pay jobs.”

In their analysis of the state's clusters, SRI identified strengths in the areas of agriculture, food processing, and agricultural machinery sectors. Smaller clusters with emerging strengths & good growth trends including Biosciences, Renewable Energy, Advanced Manufacturing, IT & Data Services were also identified. Research also showed the state's urban areas are attracting more prospects in the following areas: skill and technology-intensive services and research; maintaining strengths in materials and non-agricultural machinery; and automotive and transportation equipment.

SRI also reviewed the Nebraska Advantage tax incentive program. The incentives were found to be well-suited to

help larger, well-established firms with large investments and expansion projects. They found that the program could be strengthened to meet the needs of high-growth, high-technology firms that offer good-paying jobs. These kinds of companies are considered critical to attracting the high-skilled talent states and cities need to compete in the high-tech, global economy.

Recommended changes to Nebraska Advantage included the following: distributing credits on a pay-as-you-perform system, which would make earned credits more accessible to businesses while they are making strategic investments; basing performance measures on independent sources of data; creating more discretionary funding based on rigorous Return On Investment estimates; restricting tax credits to new jobs that pay wages at or above county median wages; offering increased incentives for new jobs that pay more than 200 percent of a county's median wages; and making tax credits available for follow-on investments that yield increased pay to employees.

In the area of workforce gaps, the study highlighted Nebraska's low unemployment rate and high workforce participation rate. This can create challenges for companies seeking talent to fill open positions and planning for positions needed for future expansion and growth. Nebraska's workforce is well-educated, and the high participation rate indicates a strong work ethic. Nebraska, however, faces shortages of information technology workers and other STEM graduates needed for high pay, fast growth occupations. Nebraska also needs to continue to address acute shortages of workers in skilled trades needed for manufacturers and companies in the building trades.

Recommendations for workforce solutions included the following: increasing internship opportunities; shorter training courses and educational tracks; and further evaluation of initiatives to provide Nebraska students and faculty with more applied research and entrepreneurial opportunities.

To access the final SRI report, go to www.negovsummit.com.

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Network Nebraska achieves 100% public school district participation

This summer, Network Nebraska is celebrating the participation of the 245th and final public school district. Over the course of its 10 year history, Network Nebraska has become one of the largest, most affordable statewide education networks of its type in the country, and has achieved one of the lowest commodity Internet rates. Additional cost savings were realized again this year with the 2016-17 internet unit rate dropping another 16% from last year. Since 2007, the project has brought about an internet cost decrease of 99.1%.

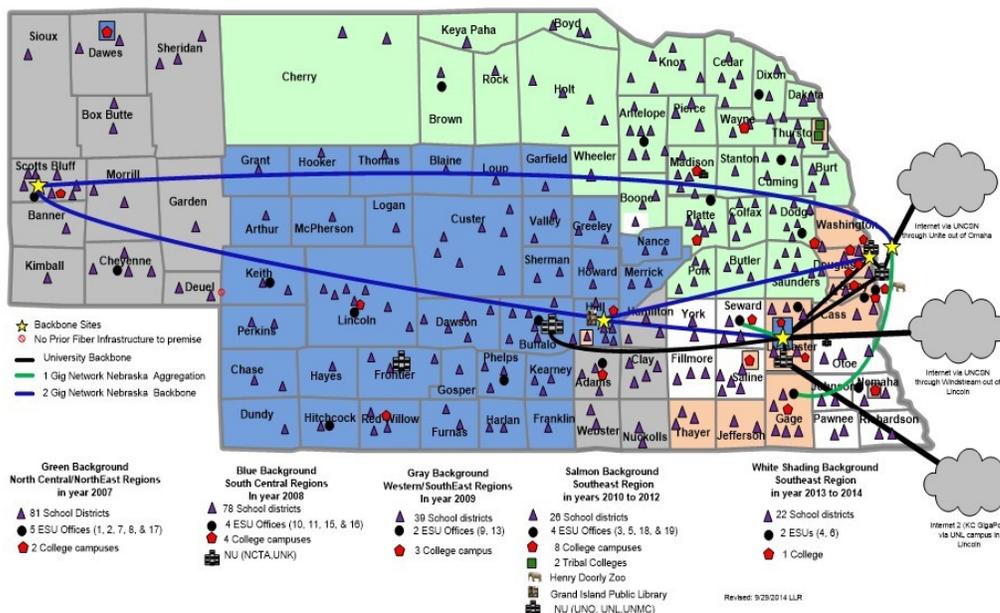
Network Nebraska was established in 2006 by the Legislature and is cooperatively managed by the State of Nebraska Office of the Chief Information Officer and the University of Nebraska Computing Services Network. Network Nebraska interconnects all of the public school districts, educational service units, and public colleges and universities on a single network for purposes of distance education and providing affordable Internet access. Network Nebraska also serves many private schools, several public libraries and one municipality.

“Network Nebraska is one of the best public-private partnerships that I have seen. It is lean, affordable, and completely dedicated to serving the taxpayers of Nebraska by brokering lower cost telecommunications services for its education partners.”

—Ed Toner

Ed Toner, State CIO appointed by Governor Ricketts in June 2015, said, “Network Nebraska is one of the best public-private partnerships that I have seen. It is lean, affordable, and completely dedicated to serving the taxpayers of Nebraska by brokering lower cost telecommunications services for its education partners.”

Network Nebraska-Education 2016



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Nebraska's PDMP takes unique approach to reduce opioid abuse, addiction

By Ashley Newmyer, Felicia Quintana-Zinn, Amy Reynoldson, and Peg Ogea-Ginsburg, Prescription Drug Monitoring Program, Nebraska Department of Health and Human Services

The Nebraska Department of Health and Human Services (DHHS) has been awarded a Center for Disease Control (CDC) Prescription Drug Overdose Prevention for States (PDO PfS) grant to focus efforts on reducing opioid abuse and addiction by working with external stakeholders to implement three major components. Those components include enhancing and maximizing the prescription drug monitoring program (PDMP), establishing statewide pain management guidelines for chronic pain, and creating awareness about the increased access to Naloxone.

Similar to the national trend, in the past several years Nebraska has seen an increase in emergency department visits and deaths due to drug overdoses, in particular due to opioid pain relievers.

Efforts to enhance and maximize the PDMP are underway. These include the implementation of legislation that requires reporting of all dispensed prescriptions by dispensers, development of training and educational materials for the PDMP, and guidance from the PDMP workgroup. The PDMP workgroup consists of stakeholders from several Nebraska professional associations and various health/medical boards. Prescribers and dispensers will be educated on the new PDMP system in the fall of 2016 and the PDMP system will become available on January 1, 2017. Prescribers will have the option of utilizing the PDMP system for patient care and treatment purposes at that time.

Beginning January 1, 2017, dispensers will report all dispensed controlled substances to the PDMP and beginning January 1, 2018, dispensers will report all prescriptions to the PDMP. DHHS will be working to promote the use of the PDMP system as a best practice to both prescribers and dispensers.

Why is it important to have a PDMP in Nebraska?

Similar to the national trend, in the past several years Nebraska has seen an increase in emergency department visits and deaths due to drug overdoses, in particular due to opioid pain relievers. According to Nebraska Vital Records, this trend has led to a rise from 36 deaths (age-adjusted rate (AAR) of 2.2 per 100,000) in 1999 to a peak of 149 deaths (AAR of 8.2 per 100,000) in 2015. Of these drug overdose deaths in 2015 at least 54 (36%) were opioid related.

Nebraska Legislative Bill 471, establishes that, "the primary purpose of the PDMP is to prevent the misuse of controlled substances that are prescribed, allow prescribers and dispensers to monitor the care and treatment of patients for whom such prescription drug is prescribed to ensure that such prescription drugs are used for medically appropriate purpose."

Comprehensive approach - Opioid Prescribing Guidelines

DHHS is committed to establishing statewide evidence-based opioid prescribing guidelines for chronic pain. An internal DHHS team with representatives from the divisions has been organized to work closely with external stakeholders to improve prescribing guidelines. The CDC Guideline for Prescribing Opioids for Chronic Pain, released March 2016, will be used as a model to create benchmarks for measuring prescribing behaviors going forward in support of the CDC PDO PfS grant. DHHS will provide voluntary pain management continuing education, focusing on the statewide prescribing guidelines for all prescribers.

DHHS supports increased uptake of best practices in pain management and increased training on access to medication assisted treatment (MAT). A key piece of this process is collaboration with local, state, and national partners, such as the Substance Abuse and Mental Health Services Administration (SAMHSA), to provide ongoing education and up-to-date best practices. Access to health care and support for treatment are important to address through pain management education. Education and training for providers and consumers on alternative methods to treat pain will be included in the commitment to a valued approach.

As prescribing guidelines are adopted and the PDMP becomes available, DHHS expect these two tools to work

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hand in hand to improve patient safety and reduce adverse drug interactions. As implementation moves forward, efforts for ongoing technical education for prescribers and dispensers will continue. This education will specifically address how to use the PDMP system (supported primarily by NeHII) and program education related to opioid use, abuse, and treatment.

The PDMP system in Nebraska is unique compared to others across the nation. The state's PDMP system 1) works in conjunction with the Health Information Exchange, 2) is a public health model, and 3) is a tool for improving patient safety.

Unique PDMP System in Nebraska

The PDMP system in Nebraska is unique compared to others across the nation. The state's PDMP system 1) works in conjunction with the Health Information Exchange, 2) is a public health model, and 3) is a tool for improving patient safety. With the passage of LB 237 in 2011 the Legislature created the prescription drug monitoring program and established that it be housed in the Nebraska Health Information Initiative (the Health Information Exchange entity in the state). With this model, physicians could view a patient's medication history and other clinical information through NeHII's Virtual Health Record (VHR). This functionality enabled physicians to more safely prescribe medications and make treatment recommendations based on a more comprehensive view of their patient's medical history.

Improving Awareness

Given the complexity of the efforts to reduce opioid use and addiction, DHHS has enhanced communication efforts by working across divisions to coordinate one message with partners and stakeholders. Communication has been disseminated to regional behavioral health partners monitoring network capacity for access to and availability of medication assisted treatment. DHHS is also developing a website to support the PDMP efforts and provide information for prescribers, dispensers, and consumers in one location. The website will include information on the PDMP, FAQs for the three identified audiences, project partners, re-

sources, and current news related to opioid efforts. In the current era of health care delivery where consumers want to be involved in their own well-being, it is imperative that DHHS provide adequate information and treatment strategies related to pain and addiction. The website is scheduled to be available in the summer of 2016.

FCC Connect2Health Task Force unveils broadband health mapping tool

The Federal Communications Commission's Connect2Health Task Force has launched the Mapping Broadband Health in America tool (available at www.fcc.gov/health/maps), a web-based mapping tool that will enable and inform more efficient, data-driven decision making at the intersection of broadband and health. The interactive mapping tool shows various aspects of connectivity and health for every state and county in the United States. Users can generate customized maps that display broadband access, adoption and speed data alongside various health measures (e.g., obesity, diabetes, disabilities and physician access) in urban and rural areas. These maps can be used by both public and private sectors and local communities to identify not only gaps, but also opportunities.

The broadband access and adoption data was extracted from the FCC's Form 477 dataset and is current as December 2014. The tool uses data about residential broadband access (deployment) and Internet adoption (subscriberhip). Access is correlated to the FCC benchmark speeds of 25 Mbps download and 3 Mbps upload.

6th Circuit Court invalidates FCC order preempting state laws restricting municipal broadband

On August 10, 2016 the 6th Circuit Court invalidated the FCC's order preempting state laws in North Carolina and Tennessee which had restricted municipal provision of broadband. The Court found that "Section 706 does not contain a clear statement authorizing preemption of Tennessee's and North Carolina's statutes that govern the decisions of their municipal subdivisions."

The decision can be found at <http://www.opn.ca6.uscourts.gov/opinions.pdf/16a0189p-06.pdf>.

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NITC GIS Council and OCIO launch one-stop shop for GIS data

The NITC GIS Council and the Office of the CIO have launched the NebraskaMAP.gov web site which serves as a gateway to Nebraska’s geospatial data and information.

“NebraskaMAP is a one-stop, authoritative shop for data,” explained Andrew Christenson, GIS program coordinator/analyst, Nebraska State Patrol.

NebraskaMAP provides a centralized location to search and locate relevant authoritative geospatial data layers in Nebraska. Data made available through NebraskaMAP consists of both public and private information. Access to data and information can be made available either through file download, web map services or linkages to outside sources. Other relevant information pertaining to spatial data can also be accessed (i.e., static print maps, data tables, etc.).

“I’ve applied GIS technology as a tool to my work for over twenty years, and I was pleased to be included in the development of NebraskaMAP,” said Michael Munson, Department of Roads engineer. “It opens doors to increased productivity for current GIS users, and invites others to consider how geospatial information might make their work more effective; to think outside of the box. It breaks down barriers to data sharing. There may have been some inadvertent shaping as a result of perseverance.”

NebraskaMAP enhances the GIS Council’s mission by providing access to the state’s authoritative geospatial data and information. This type of data sharing will reduce duplicative efforts and costs of widely shared data sets.



The NebraskaMAP Team celebrates the project launch. Front row from left to right: Andrew Christenson, Bill Wehling, Steve Rathje, Michael Munson, Sam Fifer. **Second row left to right:** Nathan Watermeier, Claire Inbody, Jeff Timm, Nancy Taylor, Milda Vaitkus, Casey Dunn, Jon Kraai, Holly West, and Sudhir Ponnappan. **Not pictured:** Alicea McCluskey and Adonna Fleming.

Broadband Nebraska is produced by the NITC Community Council in partnership with the Nebraska Broadband Initiative. To subscribe go to: <http://nitc.ne.gov/news/community/index.html>

The **Nebraska Information Technology Commission (NITC) Community Council** (nitc.ne.gov) promotes the adoption and utilization of broadband technologies in Nebraska and provides recommendations to the NITC.

Twitter: @NITCcommunity1
Facebook: <https://www.facebook.com/NITCcommunity/>

The Nebraska Broadband Initiative (broadband.nebraska.gov) promotes the adoption and utilization of broadband in Nebraska. Project partners include the Nebraska Public Service Commission, University of Nebraska-Lincoln, Nebraska Information Technology Commission, Nebraska Department of Economic Development, and AIM.