



## Information Technology Assessment and Plan for the Central Region

### Introduction

Broadband high-speed Internet access is transforming Nebraska's economy and society. Businesses are using the technology to become more efficient, reduce costs, expand their markets and increase revenues. New technologies are expanding social opportunities and enhancing quality of life for Nebraskans.

In response to these changing conditions, communities are seeking ways to become "e-communities," defined as communities that are aware of their diverse information technology needs and that strategically plan to use these technologies to meet their economic, community and social development needs in the future. Leadership of e-communities is also planning how to use information technology to recruit and retain youth and grow businesses.

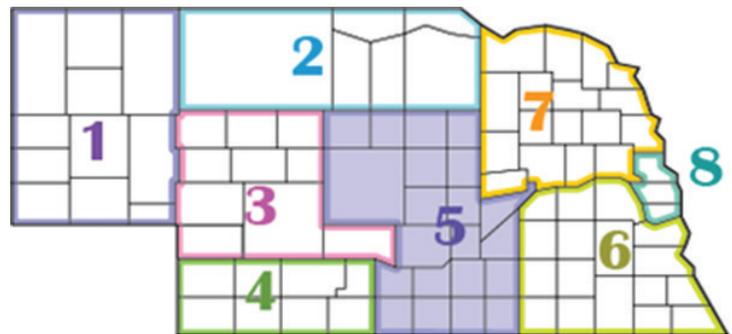


Figure 1. The Central region of Nebraska

### Planning Process

This report summarizes the current priorities and goals of the Central region which comprises the following counties: Harlan, Franklin, Webster, Nuckolls, Phelps, Kearney, Adams, Clay, Buffalo, Hall, Hamilton, Merrick, Howard, Sherman, Valley, Greeley, Blaine, Loup, Garfield, Wheeler, and Custer (see Figure 1).

Information for this report was gathered in a variety of ways. A kick-off Regional Forum in March 2011 brought members from across the region together to learn about the Nebraska Broadband Mapping and Planning Initiative. Additional volunteer meetings were held in 2011 and 2012. Survey results from an initial household survey were shared, and the statewide map was introduced (see Figure 2). Assessment tools were placed online to aid in gathering information. A listserv was created to help keep participants and other interested parties aware of progress. A survey was conducted at the NeATA conference in Kearney, January 2013.

## Summary: Assessment of the region's technology strengths and resources

The planning team identified strengths, trends and resources directly or indirectly impacting broadband access. They are listed here.

- Community Leadership
  - Community leaders in progressive communities works with the Nebraska Department of Economic Development, USDA Rural Development, local economic developers, businesses and local Internet service providers (ISPs) to increase awareness of broadband benefits in promoting their communities as vibrant and sustainable.
- Economic Development and E-Commerce
  - Communities have support organizations that can provide additional education on broadband to small businesses and industries. Some options include Department of Economic Development, USDA Rural Development, local economic developers, UNL Extension, local ISPs, educational institutions and health care organizations.
- Telecommunications Infrastructure
  - Many rural communities have the infrastructure to provide broadband access. Local ISPs are interested in providing greater broadband coverage as long as the demand and economic issues justify it.
- Technology Literacy and Training
  - The planning team sees a need to educate residents, local government and community leaders, businesses and others about the benefits of broadband. Local educational institutions, UNL Extension and other support groups could be tasked with providing the classes or information.
- Public Library Services
  - The Nebraska Library Commission has supported many libraries in the area with funds to purchase new technologies including increased bandwidth. Libraries could be a source of broadband education and innovation.
- Health Care
  - eHealth technologies like the e-prescribing, patient portals, health information exchange, and telehealth require broadband. Consumers are also beginning to use applications which enable them to better manage their care or the care of family members.
- Education
  - School systems appear to have good broadband access. Local school board members are interested in staying up to date with these technologies thus providing continued high-quality education for students of any age in the region.
- Agriculture
  - Agribusinesses in the area are meeting a demand by farmers and ranchers in the region for greater access to information and precision technologies geared to enhance profitability.
- Non-Profits, Arts, Culture and History
  - This segment of the population has a great stake in the access to new technologies. Much information in these areas is available and can be provided over the Internet. Due to the large amount of images, video and other media used in these areas, high-speed broadband access is extremely important and necessary.

## Household Survey Results (2010) for Region

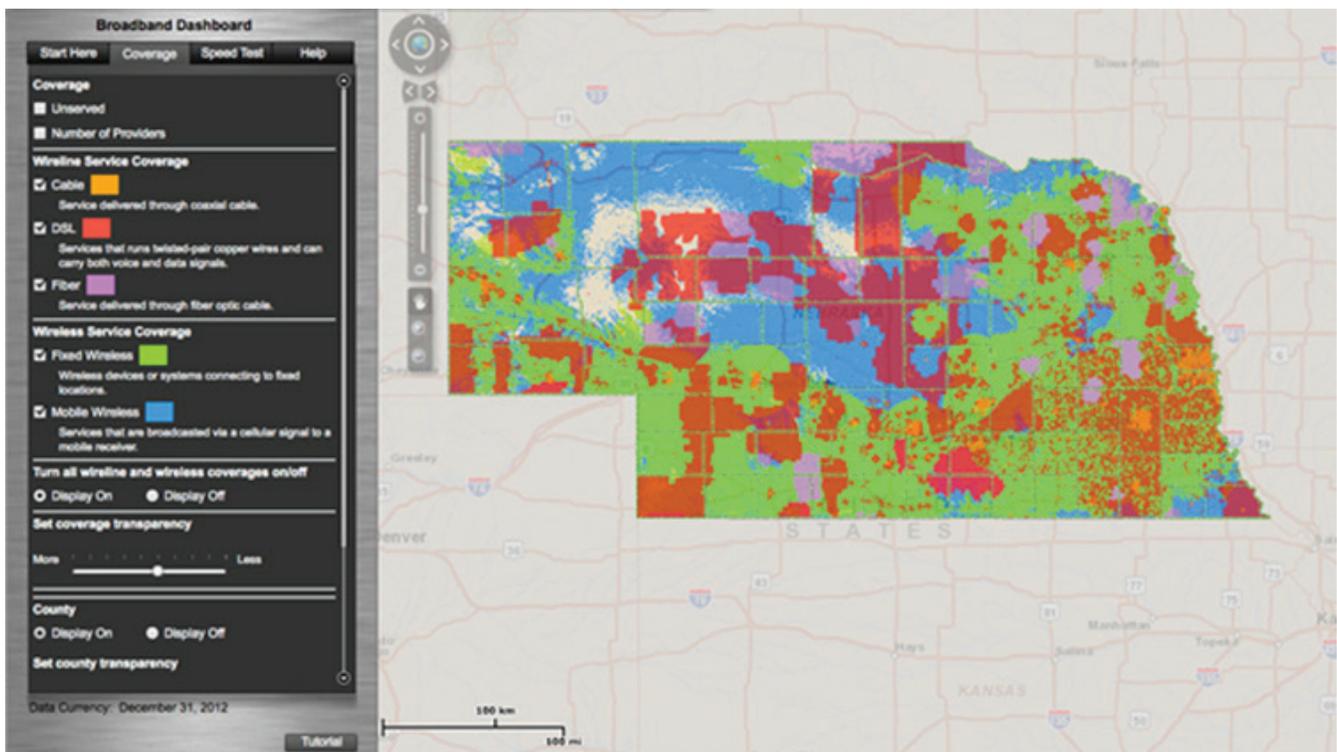
The 2010 Household survey found that location matters in broadband adoption. About 66 percent of residents in the Central region have adopted broadband compared to 76 percent statewide and 82 percent of metropolitan households. Statewide, most households expressed satisfaction with the reliability, speed and support of their Internet service. However, 62 percent of Central region residents were satisfied with the speed of their Internet service, compared to 70 percent of Omaha residents.

Approximately 34 percent of Central region residents are satisfied with the types of Internet services available in their community, compared to 43 percent in the Omaha metro area. Just over 23 percent Central region residents think the current services are very adequate for attracting new residents or for future generations (21%). Statewide, 46 percent of households say there are free public hotspots available in their community; 31 percent of Central region residents say they have free public hotspots in their community.

## Mapping Wireline and Wireless Coverage in Nebraska

The Nebraska Broadband Mapping Project provides statewide coverage maps, available online at [broadband.nebraska.gov/mapping](http://broadband.nebraska.gov/mapping). The State of Nebraska created this site to offer information regarding broadband availability and planning activities to its citizens. Collaboration among the state, federal government, broadband providers and community organizations makes possible an up-to-date representation of broadband availability through an interactive map.

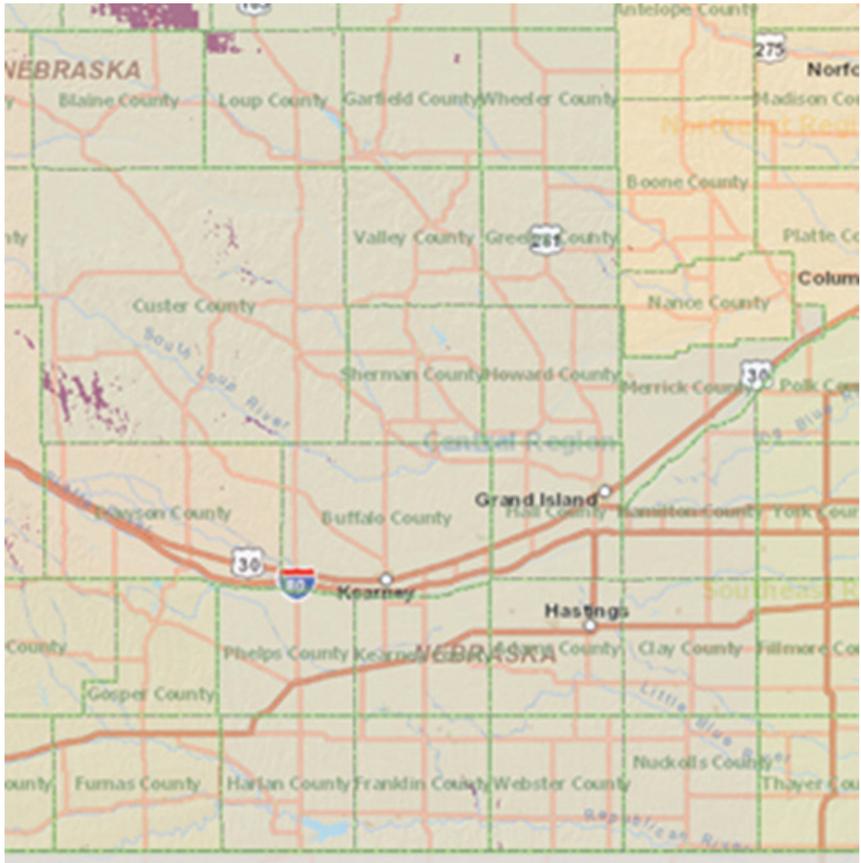
Figure 2 shows wireline and wireless coverage for the state as of Dec. 31, 2012. The green shading represents the fixed wireless coverage; blue represents mobile wireless coverage; red represents DSL wireline coverage; lavender represents fiber wireline service; and orange represents cable wireline coverage. The interactive map allows users to select individual service options or see combinations, with county and regional boundary indications. In addition, the



**Figure 2. Broadband wireline and wireless coverage in Nebraska**

map includes the option to gauge available Internet speed and identify provider options by address. More details on mapped service coverage are included in the guide at the left of the state map. Unshaded areas represent the unserved areas of the state. The map shows that the majority of the Central region is covered by cable, DSL, fiber or fixed wireless in addition to mobile wireless.

The map in Figure 3 provides a better view of areas in the Central region that are currently unserved (dark purple shading). According to data collected, the Central region has very few locations that are unserved. While areas of the region may be pushing for higher speeds, overall there are options for broadband.



**Figure 3. Unserved Areas in Central region (no broadband services available in purple shaded area)**

## Central Region Broadband Vision Statement and Goals

Vision: Reliable and affordable broadband access in Nebraska's Central region resulted from the implementation of community technology committees, increased broadband awareness and educational opportunities. Goal: Business, agriculture, health and education leaders will continue to work with local and state government leaders and Internet service providers to provide high-speed Internet access to every home in the Central region.

### Priority Areas

Understanding the benefits of broadband and encouraging individuals and businesses to use broadband is a focus of the Central region. Two priority areas were identified using input from the Central planning team, utilizing broadband assessments, and conversations with economic developers and agricultural producers and businesses. The priorities areas are:

*Priority 1: Economic Development* — Create community or regional technology teams; develop educational programs on how businesses can capitalize on broadband; and explore ways to bring high-speed Internet to areas that currently do not have access.

*Priority 2: Agriculture* — Provide education and develop a plan to encourage producers to explore technologies that would benefit their decision making.

### Economic Development

The region has identified the use of broadband technology for economic development as the first priority.

#### Brief summary of strengths, issues and needs

Most communities are aware that they are not tapping into the full potential of high-speed Internet access. These communities have access to various resources including the Department of Economic Development, USDA Rural Development, local economic developers, UNL Extension, local ISPs, educational institutions, and health care organizations. These groups appear to be using broadband access in increasing numbers and in a variety of innovative ways.

These groups can help provide best practice scenarios and can work together to increase awareness of broadband capabilities and increase demand for services. This would stimulate smaller telecommunications companies to deepen broadband resources and services in more areas.

#### Action Plan

The following actions focus on strengthening the case to create additional demand in the region by demonstrating how broadband access can make a difference.

- Develop community technology committees. These committees could help identify current capabilities, training needs, and stimulate collaborations.
  - Make a list of economic development directors, Chambers of Commerce and community clubs or civic organizations to contact.
  - Invite these groups to identify ways they could help their communities move forward with technology.
- Encourage more education regarding the use of broadband capabilities and services.
- Develop educational programs that target rural businesses on how they can capitalize on the use of broadband technologies and applications.
- Invite groups in education, agriculture and economic development to complete online assessment tools.

- Develop a plan to connect users with non-users to share ideas and experiences.
  - Identify willing business leaders who have benefited from broadband and would be willing to help rural community businesses begin to see what potential financial opportunities they are missing out on.

## **Agriculture**

The region has identified agriculture and agricultural-related industries as a priority goal.

### **Brief summary of strengths, issues and needs**

Although the Central region has a high urban population, it also has a large segment of the population involved in production agriculture and agribusiness. Some of these businesses lack the knowledge and skills necessary to take advantage of the access they may have to broadband technologies. In some cases the access is there but the capacity is inadequate.

The agribusiness industry is developing broadband applications including precision agriculture and access to large information databases. Some farmers and ranchers can't access reliable, affordable and adequate broadband. Larger farm operations are willing to adapt to new technologies and can more easily afford them than smaller farmers.

### **Action Plan**

Rural residents need access to affordable and reliable high-speed broadband in order to adopt many of the new technologies available to them.

- Gather agribusiness representatives to discuss possible ways to influence access to affordable and reliable broadband in the region.
- Identify key agribusiness representatives in the region.
  - Establish a Nebraska Agribusiness Technology group to provide leadership to communities and producers who are seeking affordable broadband access.
- Provide educational and training opportunities to mid-sized and smaller farm operations focusing on the benefits of high-speed Internet in their decision-making and how it can influence profitability.
- Identify key agribusiness representatives who have utilized technology in their businesses and would now like to promote broadband decision-making applications to producers.

## **Conclusion**

This document reflects the current status and identifies future broadband technology needs of the Nebraska Broadband Initiative Central Region. The content has been developed with the input and assistance of residents of the Central region. Changes to this plan will occur due to the dynamic nature of the technologies and the implementation of the action plans. Your input and feedback may stimulate and contribute to updates in the regional plan. Share feedback on this plan with Dennis Kahl, Central Regional Coach, by phone at 402-643-2981, or by email at [dkahl1@unl.edu](mailto:dkahl1@unl.edu)

This process is fluid and dynamic, and this report is intended to capture its status only at this point in time. This evolution will continue.

## Central Region Team Representation

Member Name	Group represented	Area
Mike Mawby	PinPoint	Service Provider
Sharon Hueftle	So Central Econ Dev. Dist.	Economic Development
Dena Beck	REAP	Economic Development
Lori Reid	ATC Communications	Service Provider
Landis Vinchattle	The Buckle	Economic Development
Jim Crandall	University of Nebraska–Lincoln	Economic Development/Ag
Ron Cone	ESU 10	Education
Eric Jones	Central Community College	Education
Brandon Hunnicutt	Ag Producer	Agriculture

## Techniques for Information Gathering

Activity	Audience Size	Date of Contact
Face-to-Face Meeting	14	July 2011
Face-to-Face Meeting	8	October 2011
Face-to-Face Meeting	6	December 2011
Conference/Webinar	5	January 2012
Put the Assessment Tools Online	15	November 2011 - March 2012
Team Identity of groups to contact	10	February - July 2012
Promotion of Oct. Broadband Conf.		June - August 2012
Education of NE Broadband Map		May - August 2012
Added new people to Listserv as they expressed interest.		
Conducted survey at NeATA conference in Kearney, January 2013		

For additional information, contact:  
 Dennis Kahl, Central Regional Coach  
 University of Nebraska–Lincoln  
 402-643-2981  
[dkahl1@unl.edu](mailto:dkahl1@unl.edu)

## References

Internet Connectivity and Use in Nebraska Survey.

[http://liferaydemo.unl.edu/c/document\\_library/get\\_file?uuid=32e75940-6288-401e-93a4-9a3ebd8a2398&groupId=4583971&groupType=1](http://liferaydemo.unl.edu/c/document_library/get_file?uuid=32e75940-6288-401e-93a4-9a3ebd8a2398&groupId=4583971&groupType=1).pdf

Engaging People. Linking the World Broadband Planning Workbook

[http://broadband.nebraska.gov/c/document\\_library/get\\_file?uuid=d7b74d0f-c89b-4c74-907d-ec3331eabb03&groupId=1874&groupType=1](http://broadband.nebraska.gov/c/document_library/get_file?uuid=d7b74d0f-c89b-4c74-907d-ec3331eabb03&groupId=1874&groupType=1).pdf



### **The Nebraska Broadband Initiative**

This Broadband Mapping and Planning Initiative is funded through a grant to the Nebraska Public Service Commission by the U.S. Department of Commerce's National Telecommunications and Information Administration and aims to increase broadband adoption and utilization.

Project partners include the University of Nebraska, Nebraska Department of Economic Development, Nebraska Information Technology Commission, Nebraska Public Service Commission, and the AIM Institute.