

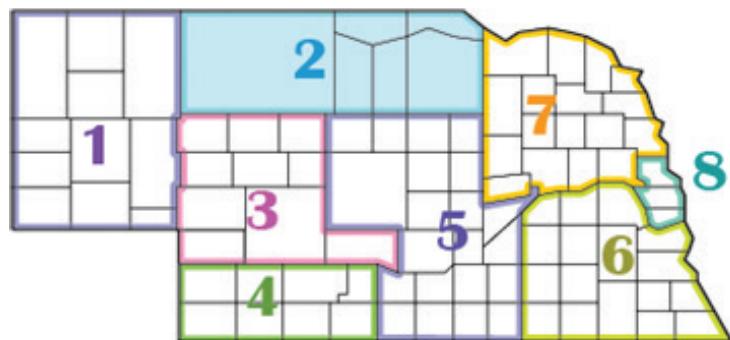


# Information Technology Assessment and Plan for the North Central Region

## 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 North Central region of Nebraska**

## Planning Process

Clearly, some regions in Nebraska are ahead of others in adopting this new technology. This report summarizes the current goals of the North Central region (see *Figure 1*), which comprises the following counties: Cherry, Keya Paha, Brown, Rock, Boyd and Holt. Information for this report was gathered using the following process: A kick-off Regional Forum in March 2011 brought nearly 25 members from across the region together to learn about the Nebraska Broadband Mapping and Planning Initiative. Survey results from an initial household survey were shared, and the statewide broadband coverage map was introduced (see *Figure 2*). Three focus groups provided additional information and feedback as did assessments for business, education and health care. (See the section at the end of this report — Techniques for Information Gathering.)

Participants then focused on the priorities for the region. Ten people served on a planning team working with a regional coach. The data from the map, household survey and subsequent focus groups were the basis for the plan's content.

## Household Survey Results (2010) for Region

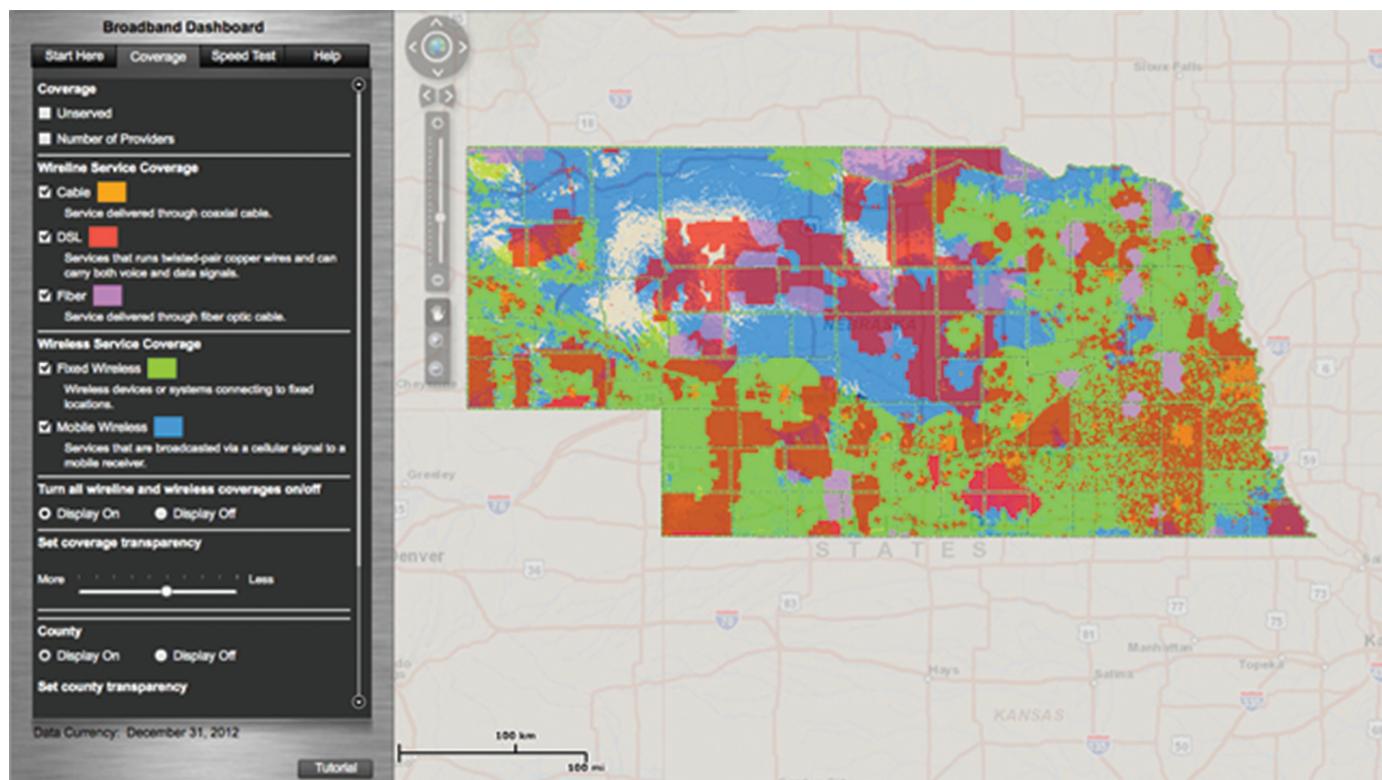
The 2010 household survey found that location matters in broadband adoption. About 53 percent of residents in North Central have adopted broadband compared to 76 percent statewide and 82 percent of metropolitan households. Statewide, most households expressed satisfaction with the reliability, speed and support of their Internet service. However, only 50 percent of North Central residents were satisfied with the speed of their Internet service, compared to 70 percent of Omaha residents.

Only 26 percent of North Central residents are satisfied with the types of Internet services available in their community, compared to 37 percent statewide. About 75 percent of Nebraska households have access to a place locally that provides free Internet access (library, school, etc.) That number is 69 percent in the North Central region. Statewide, 46 percent of households say there are free public “hotspots” available in their community; yet only 16 percent of North Central 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 and federal government, broadband providers and community organizations makes possible an up-to-date representation of broadband availability through an interactive map.

The map in *Figure 2* shows wireline and wireless coverage for the state of Nebraska. 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 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.

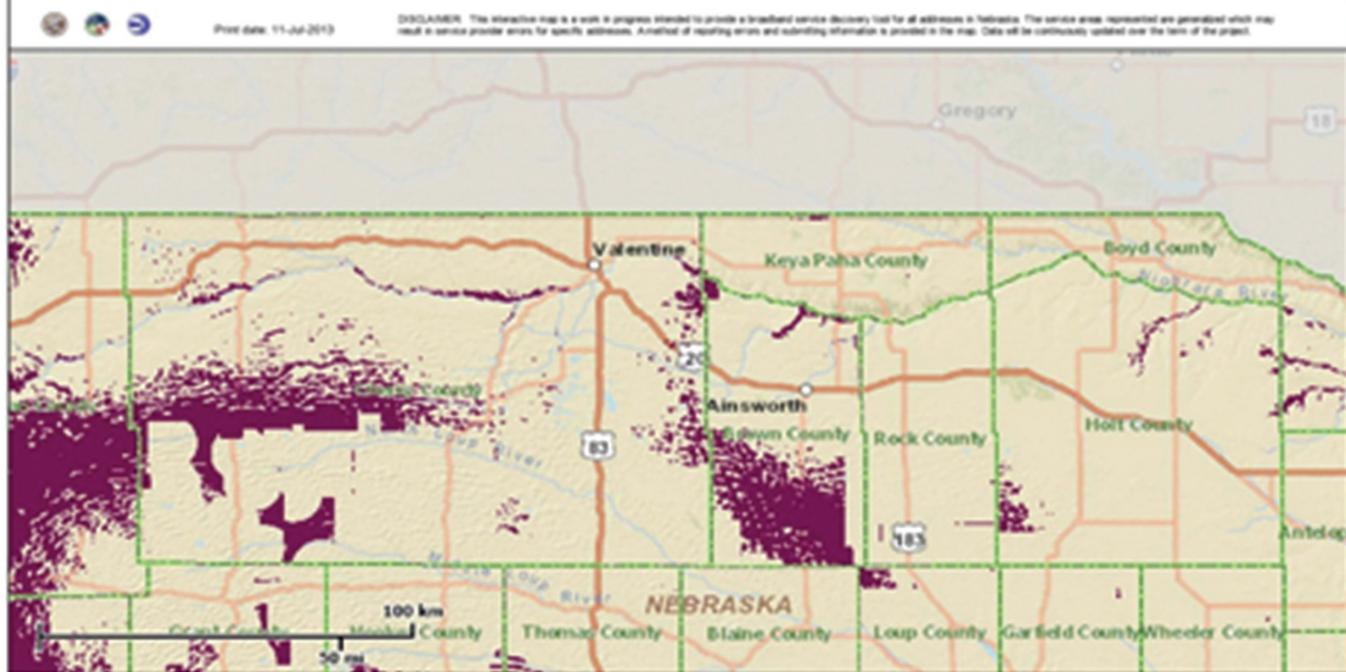


**Figure 2. Broadband wireline and wireless coverage in Nebraska**

The map in *Figure 3* provides a better view of areas in the North Central region that are currently unserved. The dark purple shading generally indicates geographic areas that do not currently have broadband service coverage available.

 Unserved

Areas with no broadband services available.



**Figure 3. Unserved areas in north central region (no broadband services available in shaded area)**

## North Central Region Broadband Vision Statement and Goals

Residents and businesses in the North Central region of Nebraska, a predominantly rural area, will have access to digital information and communication tools and the training to use them as skillfully as urban Nebraskans.

A key goal is to identify leaders, partnerships, collaborators, government programs and competitive opportunities. Other goals include: identifying technical requirements for needed broadband capacity, establishing ways businesses can leverage broadband access to increase e-commerce opportunities, exploring ways businesses can share experiences and learn from each other, preparing residents to incorporate and use applications made possible by broadband access such as those that will be required by changes in health care law.

The successful realization of this vision, the regional plan and the growing success of the region depend on access to broadband services by all geographic areas. Currently, access varies by area and community. Reliable access to high-speed Internet service and training is necessary to achieve increased adoption and use.

## **Priority Areas**

Three high-priority areas have been identified to be the focus of the assessment and action planning. They are: economic development, education and health care.

**Priority 1:** Economic development efforts target high-tech entrepreneurs and a workforce with technology skills. Businesses use information technology to improve profits and grow their customer base. Agriculture and related businesses are included with economic development.

**Priority 2:** Schools are highly networked environments; classrooms have broadband access and teachers are trained in its use. Students, parents, teachers and administrators have equitable access in a way that facilitates mobile learning.

**Priority 3:** Health care providers are meeting benchmarks and targets regarding electronic records, prescriptions and other legal requirements. Telehealth technologies are being used cost effectively. Patients are able to access health care information.

## **Economic Development & E-Commerce**

The region has identified economic development and e-commerce as priorities. For this plan, agriculture and its associated industries are considered part of this priority area.

### **Assessment**

This region has a number of strengths, resources and assets that can be leveraged to enhance economic and e-commerce development by the adoption and use of broadband technologies.

Major strengths were identified by the regional planning team, including dedicated people who want to see growth and are willing to make it happen. The residents' knowledge and willingness to understand how they can participate in securing broadband access and use it to promote regional growth was discussed and highlighted in many of the forums and focus groups.

Additionally, based on surveys, economic development workers are a major strength. The regional planning team indicated that these economic developers working with community leaders in the region are a strong asset integral to the success of the region and the implementation of broadband technologies.

The planning group identified area residents, community leaders and business leaders as both resources and assets in promoting the adoption and use of new technologies. Broadband access, its utilization and the way it is being implemented vary widely among these groups, especially businesses. Acting as both a resource and an asset, these groups can build coalitions and interest groups to share experiences and learn how to leverage and benefit from broadband applications.

A few examples include: A clothing store uses a website to sell more products. Agricultural equipment dealers use broadband access for expanded production options, including precision agriculture. Cattle auctions are held with online shows, audience and sales.

### **Action Plan**

1. Approach the Nebraska Department of Economic Development about the possibility of including questions in Synchronist that would allow collection of specific ways business have adopted broadband. This information would then be shared back to businesses, so they could be more aware of different uses for broadband services.
  - a. Implementation
    - i. Area economic developers will ask the Nebraska Department of Economic Development (DED) to include questions in Synchronist for the business and retention surveys. DED must approve for this activity to continue.

- ii. The data will be summarized in a manner that will help businesses learn how their peers are successfully using broadband.
- 2. Explore other ways to help businesses learn from each other about how to leverage broadband access through leadership and interest sharing sessions.
  - a. Implementation
    - i. Local economic developers will share broadband successes with businesses in the region.

## **Education**

Education was the second priority area identified by the planning group.

### **Assessment**

Student access to computers is close to a 1-to-1 ratio in high schools. This is a definite educational strength in the region. There are ongoing discussions regarding the application of technology in the classroom.

Area schools and the Educational Service Unit are definite resources and can demonstrate the integration and usage of distance education options throughout the region. Network Nebraska ([networknebraska.net/denu](http://networknebraska.net/denu)), a distance education network and another resource, is expanding opportunities and capabilities in the region for distance learning.

Broadband access to most schools is adequate. Area schools and the Educational Service Unit can be good resources for broadband knowledge and training.

There is a general consensus among the planning team that it is an asset to have educators and parents believe there is more potential for technology to improve educational opportunities.

An example of an issue raised at the forum illustrates why improvements in broadband access and affordability are important. The issue or question asks, "What can be done for students who receive assignments that require online access to complete? Students who do not have access at home are at a disadvantage." Valentine Public Schools have begun to address this issue and have implemented effective technology education and access plans for students and parents. Other schools in the region are working to address this situation as well.

### **Action Plan**

- 1. Work with community partners to provide access for students to conveniently and successfully complete homework assignments.
- 2. Provide access to appropriate training to meet the diverse needs of teachers, students and parents.
- 3. Identify and work with community partners to provide access to computers and other devices with broadband access for younger students, as needed, in identified areas.
- 4. Improve coordination between distance education providers. Possible benefits might include sharing resources, staff development and best practices.
  - a. Implementation
    - i. Invite distance education providers to a discussion of ways to improve coordination.
    - ii. Further direction would proceed as dictated by the needs and interest of the group.

## **Health Care**

Health care is the third priority area. Significant changes are occurring in this industry. High-speed access to information and telemedicine applications will be necessary in the near future.

Indeed, health care may serve as a catalyst for current non-adopters of Internet technology to "get online," as access to health care records and related information will be critically important to individuals in the future.

## **Assessment**

This region has many health care providers who are forward-thinking and believe that broadband can help improve health care. They are working to prepare area staff and residents to deal with the impact of new health laws and policies. Broadband is especially important for areas like North Central Nebraska that are far from metropolitan areas and medical resources.

These health care leaders are willing to look to the future and to work to be sure this region remains vibrant. They see the numerous ways broadband access can improve quality of life in the health care arena. Current health care legislation will continue to drive the health care industry to increase broadband utilization.

## **Action Plan**

1. Monitor progress of patient online access to health care information. Assist health care providers with education as necessary.
  - a. Use available resources including community colleges, libraries and extension educators to create and provide necessary training to identified audiences.
  - b. Training content will be determined as new laws and guidelines are implemented. Also, use resources from the University of Nebraska–Lincoln, including extension educators and websites dedicated to health care issues.
2. Identify sources of funding assistance to for-profit and non-profit health care providers. Explore funding rules and identify options.
  - a. *Issue:* Funding rules limit access of for-profit providers to not-for profit systems and resources.

## **Conclusion**

This document reflects the current status and identifies future broadband technology needs of the Nebraska Broadband Initiative North Central Region. The content has been developed with the input and assistance of residents of the North 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 Jay Jenkins, North Central Regional Coach, by phone at 402-376-1850, or by email at [jjenkins2@unl.edu](mailto:jjenkins2@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.

## **North Central Region Team Representation**

<b>Member Name</b>	<b>Group represented</b>	<b>Area</b>
Ben Anthony	Education/Business	Bassett
Mike Burge	Business	Valentine
Neil Classen	Business	Ainsworth
Patty Finney	Education	Ainsworth
Jamie Isom	Education	Valentine
Lou Ann Tooker	Business	Atkinson
Peggy Medema	Education	Valentine
Kristin Olson	Business	Ainsworth
Kyle Arganbright	Business	Valentine
Brent Peterson	Health Care	Valentine

## **Techniques for Information Gathering**

<b>Activity</b>	<b>Audience Size</b>	<b>Date of Contact</b>
North Central Regional Broadband Forum, Valentine	24	3/31/2011
Business eReadiness Assessment	Link to survey broadly distributed in the region. 5 responded	8/29/2012
Education eReadiness Assessment	Link to survey broadly distributed in the region. 22 responded	8/29/2012
Health Care eReadiness Assessment	Link to survey broadly distributed in the region. 8 responded	8/29/2012
Focus Group – Valentine	3	9/4/2012
Focus Group – Ainsworth	5	9/5/2012
Focus Group – Atkinson	5	9/6/2012

For additional information, contact:

Jay Jenkins, North Central Regional Coach  
University of Nebraska–Lincoln  
402-376-1850  
*jjenkins2@unl.edu*

## References

Internet Connectivity and Use in Nebraska (survey report)

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

Chart on page 5 (this region identified as Central in this report)

Engaging People. Linking the World Broadband Planning Workbook

[http://broadband.nebraska.gov/c/document\\_library/get\\_file?uuid=d7b74d0f-c89b-4c74-907d-ec3331eebb03&groupId=1874&.pdf](http://broadband.nebraska.gov/c/document_library/get_file?uuid=d7b74d0f-c89b-4c74-907d-ec3331eebb03&groupId=1874&.pdf)

Page 30, paragraph 4, survey explanation copy and North Central reference



The Nebraska Broadband Initiative [broadband.nebraska.gov](http://broadband.nebraska.gov)

### 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.