



Information Technology Assessment and Plan for the Western 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.

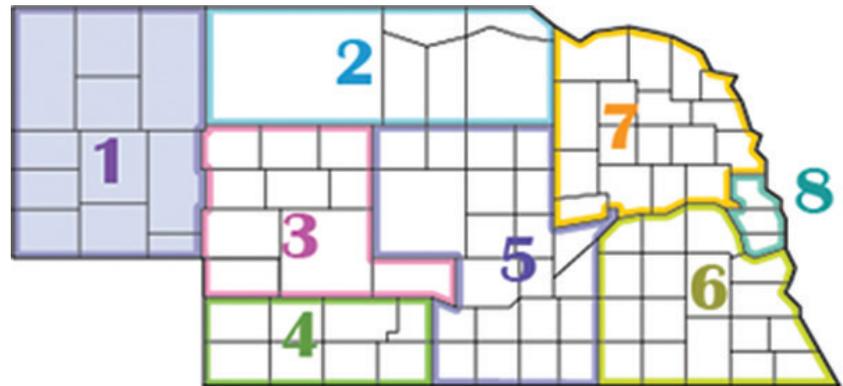


Figure 1. The Western region of Nebraska

Planning Process

This report summarizes the current goals of the Western region (see Figure 1), which comprises the following counties: Sioux, Dawes, Box Butte, Sheridan, Scotts Bluff, Banner, Kimball, Morrill, Cheyenne, Garden and Deuel.

Information for this report was gathered from a variety of sources including a regional forum held in March 2011 that brought over 55 citizens from across the region together to learn about the Nebraska Broadband Mapping and Planning Initiative. Eight participants volunteered to serve on the planning team at the forum. Survey results from an initial household survey were shared, and the statewide map was introduced (see Figure 2).

The Western region broadband planning team worked together with the Western Development Network to host a one-day Accelerating Collaboration Summit to identify priorities for the region. An external facilitator led a Strategic Doing process that created a strategy reaching across organizational and political boundaries with the intent to build collaborations quickly. Priorities and goals identified at the summit are listed below. Immediate actions included incorporating information on technology use and broadband at the annual tourism conference. In addition, 65 people from the Western region participated in the Chadron Tech Expo held April 2012. Four focus groups provided additional information and feedback. See the section at the end of this report, Techniques for Information Gathering, for a list of the events.

The regional forums, summit priorities, data from the map, household survey and subsequent focus groups were the basis for this plan's content.

Household Survey Results (2010) for Region

The 2010 household survey found that location matters in broadband adoption. About 72 percent of residents in the Western 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, 56 percent of Western region residents are satisfied with the speed of their Internet service, compared to 70 percent of Omaha residents.

One-third (33%) of Western region residents are satisfied with the types of Internet services available in their community, compared to 43 percent in the Omaha metro area. Fewer than two in 10 (19%) Western region residents think the current services are very adequate for attracting new residents or for future generations. Statewide, 46 percent of households say there are free public hotspots available in their community; 36 percent of Western 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. 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.

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

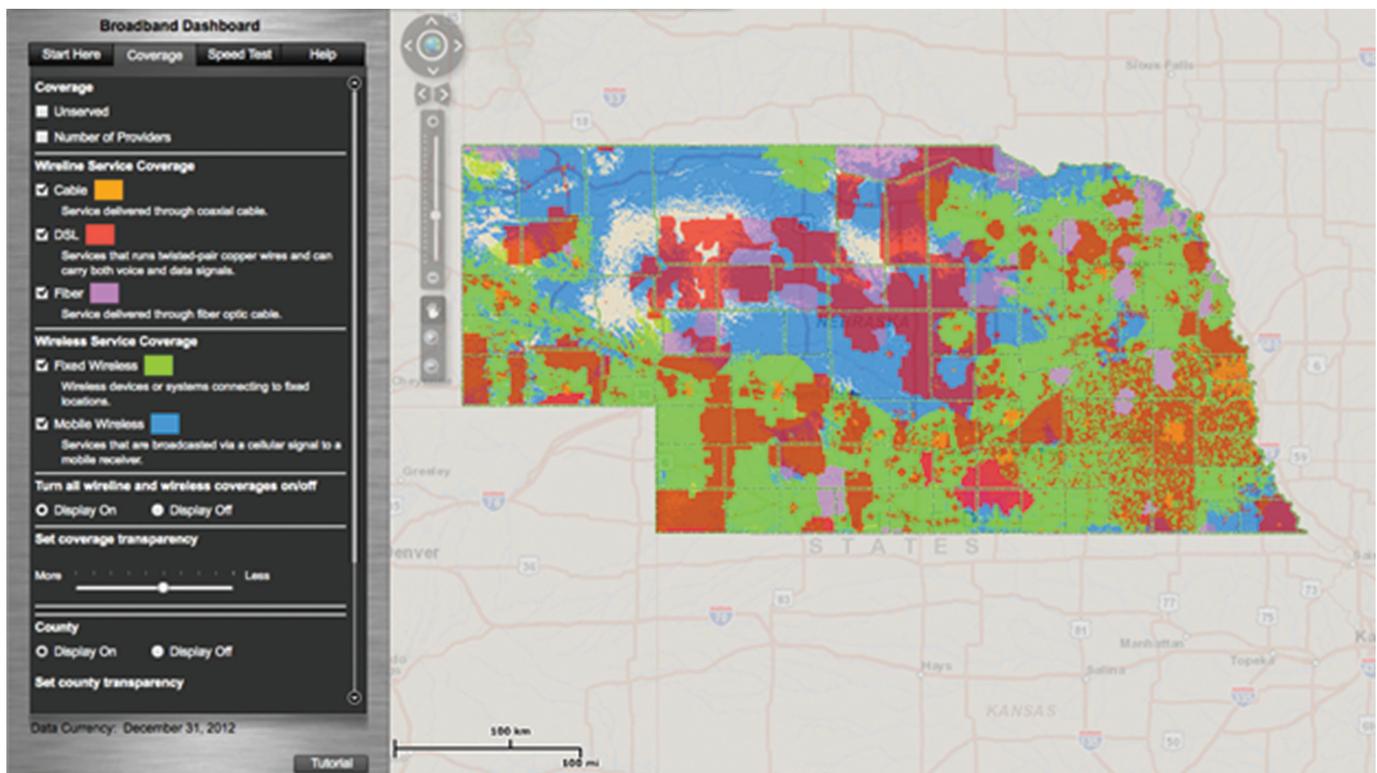


Figure 2. Broadband wireline and wireless coverage in Nebraska

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.

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

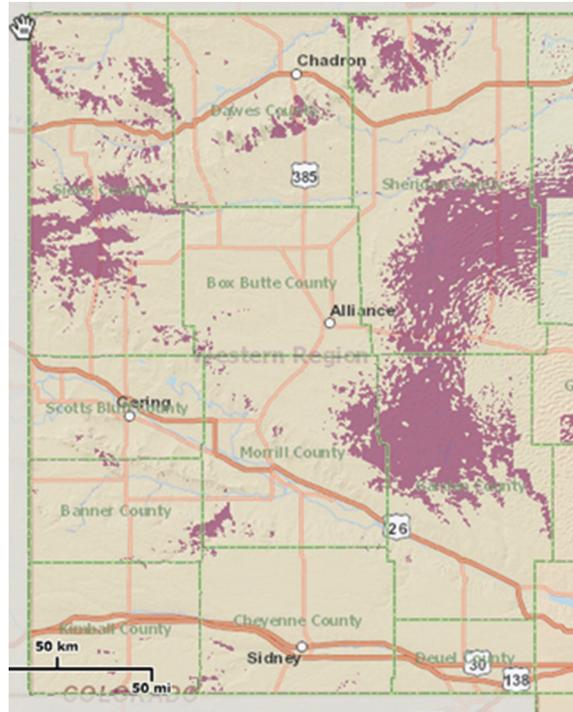


Figure 3. Unserved areas in Western region (no broadband services available in shaded area)

Western Region Broadband Vision Statement and Goals

A long-term vision to increase youth retention and facilitate business transitioning, increase economic development, and decrease the digital divide and “digital deserts” was developed at the one-day regional summit.

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 and affordable access to high-speed Internet service and training are necessary to achieve increased adoption and use, especially in the priority areas discussed below.

Priority areas

The following priorities and initial objectives were identified to help achieve that vision:

Priority 1: Education, Digital Literacy and Advanced Technology Training — *Coordinate and increase educational offerings around digital literacy skills and advanced technology training.*

Priority 2: Economic Development — *Expand awareness and growth of technology educational offerings to strengthen economic development, agritourism and entrepreneurship.*

Priority 3: Agriculture — *Explore ways to increase access to basic and adequate broadband services for agriculture producers and those living outside city limits.*

Education, Digital Literacy and Advanced Technology Training

The region has identified education, digital literacy and advanced technology training as related high priorities. Not only was education discussed in the traditional academic sense, it was specifically pointed out that businesses and schools need to partner to involve youth to encourage them to remain in, or return to, their communities. Digital literacy and advanced technology training were defined as building awareness and knowledge of the successful adoption and utilization of broadband and other technologies to enhance business and life opportunities.

Brief summary of strengths, issues and needs

The region is doing a good job of providing digital access to school systems. It was noted that school technology plans include provisions for reasonable computer and Internet access for students at institutions in the region. Many schools have close to a 1-to-1 computer access ratio. But a question exists: Is the same access that is available to students at school reasonably available to them at home? A high school technology plan in Chadron addresses reasonable access for students and families.

Many libraries have computers, Internet access and other technology resources available for use by patrons. Some libraries are able to use the resources to offer educational opportunities.

According to the “Internet Connectivity and Use in Nebraska Survey” results, a primary barrier to broadband subscribership for persons with lower household incomes is cost. It follows then that lack of access at home increases usage at public places such as the library. The survey results also show that minority groups are more likely to use the computer resources at the public use facility.

Some technology training courses are offered at the state and community colleges in the region.

Action Plan

1. Identify topics and offer educational opportunities around broadband subjects to residents and entrepreneurs in the Western region, bringing together many different educational institutions and resources.
2. Identify and expand collaborative educational efforts between libraries and other educational institutions. Facilitate and promote libraries as locations to increase educational access and to provide advanced technology training opportunities.
3. Promote collaboration and coordination of awareness and access to educational options. Use resources of Western Nebraska Community Colleges (WNCC) Chadron State College and University of Nebraska–Lincoln. Determine if there are opportunities to partner with UNL Extension Educators to provide education regarding broadband technology and the associated applications.
4. Determine baseline digital literacy levels and establish collaborative expectations for learning and communication. “Raising the bar” will enable groups of businesses and residents to advance to the next levels of technology adoption and implementation.
5. Make more effective use of broadband access and increased bandwidth to enhance educational opportunities by expanding online offerings at libraries and educational institutions.

Economic Development

Economic development is the second priority. This is especially important, as it pertains to tourism, agriculture, ag-related businesses and agritourism.

Brief summary of strengths, issues and needs

The Western Nebraska Development Network works successfully with Chambers of Commerce, FFA, FBLA and area schools to promote programs that provide students opportunities to form relationships with businesses. This increases the potential for internships, job opportunities and transitions in the future.

Youth programs in Alliance bring schools, youth and businesses together allowing youth to experience and develop interests in entrepreneurship and local businesses. Access to technology and proven successes can entice younger folks to consider business ownership.

There is a strong tourism and agritourism industry in this part of the state. Using the web and other media gets the message out that Nebraska has a lot to offer.

Organizations such as the Northwest Nebraska High Country organization provide training and marketing information to businesses.

There are recognized difficulties in adopting and meeting state requirements for online tax filings and other fee payments. Potential employees lack technology skills to adequately handle jobs in these areas. This affects residents and businesses.

Youth are key to the future and vitality of the region. It should be recognized that broadband access and associated technologies can enhance and increase opportunities for youth to stay in the region.

Action Plan

1. Expand the Nebraska Travel Conference by a day to offer web development seminars and training for businesses in tourism.
2. Partner with Nebraska Tourism regional staff to identify and conduct education and training for agritourism and ag-related businesses. Discuss ROI issues when applying technology to these industries.
3. Locate, promote and assist rural business with web development services.
4. Promote through awareness and education that online tools and broadband access and online tools can stimulate business growth and success.
5. Work with providers to promote effective technical assistance to residents and businesses.
6. Develop, implement and promote additional programs that connect youth with businesses so:
 - a. youth are aware of opportunities available in their own communities,
 - b. linkages between businesses and potential employees are made,
 - c. youth have opportunities to transition into employment or business ownership,
 - d. internships are readily available and bring together interested youth with local organizations and businesses.

Agriculture

Agriculture was identified as the third priority by the planning group. Agriculture is the largest business sector in the region. Therefore, broadband access, adoption and utilization are critical. In rural areas where many ag-related businesses are located, there are broadband “deserts” between the relative oases where communities offer broadband services. Businesses in these underserved areas find it difficult to adopt and use broadband, especially when it is limited or not cost effective.

Brief summary of strengths, issues and needs

Agriculture is the largest industry in the Western region. Much depends on its economic success.

Ag-related businesses, especially equipment dealers, lead in technology usage promoting the adoption and implementation of precision agriculture techniques in field operations. Precision agriculture uses technology to efficiently use resources, reduce waste and increase yields. In Sidney, the John Deere dealership has supported and assisted improved broadband access so farmers can take full advantage of equipment maintenance and other support and information issues. Forward thinking agricultural businesses are trying to bring Internet access to farmers and their equipment in the field.

Action Plan

1. Work with providers, business leaders and local governments to identify and bring access to unserved areas in the region.
2. Determine approaches to provide access in some areas and improve access in other areas.
3. Use UNL Extension educators to support education and promote awareness of technology uses in the Ag sector.
4. Work with ag-related business to identify and provide advanced technology training for farmers and ranchers.
5. Identify and build awareness of best practices related to broadband use.

Conclusion

This document reflects the current status and identifies future broadband technology needs of the Nebraska Broadband Initiative Western Region. The content has been developed with the input and assistance of residents of the Western region. Changes to this plan will occur due to the dynamic nature of the technologies and the implementation of the action plans. Area residents’ input and feedback may stimulate and contribute to updates in the regional plan. Share feedback on this plan with Jenny Nixon, Western Regional Coach, by phone at 308-668-2428, or by email at jnixon1@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.

Western Region Team Representation

| Member Name | Group represented | Area |
|--------------------|------------------------------|-------------|
| Roger Wess | Chadron Technology Committee | Community |
| Matt Larsen | ISP | Region |
| Joni Jespersen | ISP | Region |
| Mark Masterton | Government | Region |
| Denny Pageler | Education | Area |
| Mandy Greve | Health Care | Area |
| Pat Comfort | Government | Region |
| Margaret Akin | Government | Region |

Techniques for Information Gathering

| Activity | Audience Size | Date of Contact |
|--------------------------------------|----------------------|------------------------|
| Focus Group Interviews — Chadron | 6 | April 8, 2013 |
| Focus Group Interviews — Scottsbluff | 6 | April 8, 2013 |
| Focus Group Interviews — Sidney | 4 | April 9, 2013 |
| Focus Group Interviews — WNDC | 7 | April 9, 2013 |
| Tourism Web Development Day | 12 | October 26, 2012 |
| Accelerating Collaboration Summit | 42 | May 15, 2012 |
| Chadron Tech Expo | 65 | April 21, 2012 |
| Broadband Regional Forum | 55 | March 30, 2011 |

For additional information, contact:
Jenny Nixon, Western Regional Coach
University of Nebraska-Lincoln
308-668-2428
jnixon1@unl.edu

References

Western Nebraska Development Network, Accelerating Collaboration Summit
<http://broadband.nebraska.gov/web/nebroadband/western>

“Strategic Doing” Leveraging Broadband
http://broadband.nebraska.gov/c/document_library/get_file?uuid=a23adf0c-d626-460c-aa86-7b87c8dd9686&groupId=4583971&.pdf

Internet Connectivity and Use in Nebraska Survey.
http://liferaydemo.unl.edu/c/document_library/get_file?uuid=32e75940-6288-401e-93a4-9a3ebd8a2398&groupId=4583971&.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.