

Status Report and Policy Recommendations

September 14

2012

This document provides a compilation of baseline information the Task Force will use in preparing the 2012 Annual Report and Broadband Plan. In addition, this report includes specific recommendations for policymakers and stakeholders to consider.

Governor's
Task Force on
Broadband

Introduction

Governor Mark Dayton issued [Executive Order 11-27](#) in August 2011 creating the Governor's Task Force on Broadband ("Task Force"). The Task Force was named in November 2011 and includes the following members:

- Margaret Anderson Kelliher (Chair), President/CEO of the Minnesota High Tech Association
- Shirley Walz, Senior Director of Technology for Thomson Reuters
- Bernadine Joselyn, Director of Public Policy and Engagement for the Blandin Foundation
- Steve Lewsader, President of the Communication Workers of America (CWA), Local 7201
- Duane Ring, President of the nine-state Midwest Region of Century Link
- Gary Evans, CEO of Hiawatha Broadband Company
- Dick Sjoberg, Sjoberg's Cable
- Daniel Richter, President of MVTW Wireless
- Danna MacKenzie, Director of Information Systems for Cook County
- Maureen Ideker, Director of Telehealth, Essentia Health
- Matt Grose, Superintendent, Deer River Public Schools
- Steve Peterson, Bloomington City Council
- Bob Bass, AT&T Wireless
- Keith Modglin, Information Systems Director for the Mille Lacs Band of Ojibwe
- Bao Vang, President/CEO of the Hmong-American Partnership

The Task Force produced two reports in its first three months of work: a December 30, 2011 report to Governor Dayton providing a high-level analysis of the "state of broadband" in Minnesota ([2011 task force report](#)); and a January 31, 2012 *Minnesota Broadband Plan Outline* as required by Executive Order 11-27 ([Minnesota Broadband Plan Outline](#)).

The Task Force, in the January 31, 2012 report, indicated that in addition to the Annual Broadband Plan that will be submitted in December 2012, a September 2012 Status Report will be delivered to the Governor.

The purpose of the Status Report submitted today is to update the Governor, stakeholders, and Minnesotans on the work of the Task Force over the prior eight months and to serve as a foundational document for the December 2012 Broadband Plan that will be delivered to the Governor.

The January 31, 2012 *Minnesota Broadband Plan Outline* specified a number of goals today's Report would meet. In order to meet these goals and prepare for the writing of the Annual Broadband Plan, the Task Force determined that dividing into topic-focused subgroups would be most effective. In January, the Task Force approved the above work plan and, via voluntary assignment, divided itself into the following subgroups (with membership):

Locations

Bernadine Joselyn—leader
Maureen Ideker
Margaret Anderson Kelliher
Danna MacKenzie
Bob Bass

Coordination Across Government Levels

Danna Mackenzie—leader
Matt Grose
Steve Peterson
Duane Ring
Steve Lewsader
Keith Modglin

Best Practices/Incentives

Dick Sjoberg—leader
Margaret Anderson Kelliher
Duane Ring
Dan Richter
Gary Evans
Shirley Walz
Maureen Ideker

State of Broadband—Survey, Research, Data

Matt Grose—leader
Bao Vang
Margaret Anderson Kelliher
Steve Peterson

Broadband Adoption

Shirley Walz—leader
Maureen Ideker
Dan Richter
Bernadine Joselyn
Steve Lewsader
Keith Modglin

Monitor/Understand Impact of FCC & PUC Decisions; Cost of Broadband

Gary Evans—leader
Bao Vang
Danna MacKenzie
Bob Bass
Dick Sjoberg

The Report provides the following information:

- Updated broadband availability data;
- Summary of subgroup activities completed and planned;
- Specific policy recommendations; and
- Materials compiled by subgroups relevant to their particular focus area.

This Report will be available online at both the Minnesota Department of Commerce and Connect Minnesota web sites:

Connect Minnesota: www.connectmn.org/BBTaskForce

Minnesota Department of Commerce: www.mn.gov/commerce/topics/Broadband/Governors-Broadband-Task-Force.jsp

I. Broadband Availability: Progress Toward State Goal

State broadband goals were established during the 2010 legislative session and are found in Chapter 237.012 of Minnesota Statutes¹. The goals include the following:

Universal access and high speed deployment as soon as possible, but no later than 2015 all state residents and businesses have access to broadband service that provides a minimum download speed of ten to twenty megabits per second and minimum upload speed of five to ten megabits per second.

Connect Minnesota, as part of its work in the state, reports on availability data and, beginning in 2011, included accessing speed availability at the state statutory speed goals.

Table 1: Broadband Availability at State's Statutory Speed Goals

	Percent Household Availability of Broadband At Least 10Mbps Download and 6Mbps ² Upload
October 2011	57.4%
April 2012	59.92%

Connect Minnesota will continue to measure and report on progress toward the state speed goal bi-annually through 2014, coinciding with the scheduled term of the Governor's Task Force on Broadband.

¹ <https://www.revisor.mn.gov/statutes/?id=237.012>

² The upload speed is measured at 6Mbps as that is the closest speed tier for which data is collected and available under the NTIA established tiers.



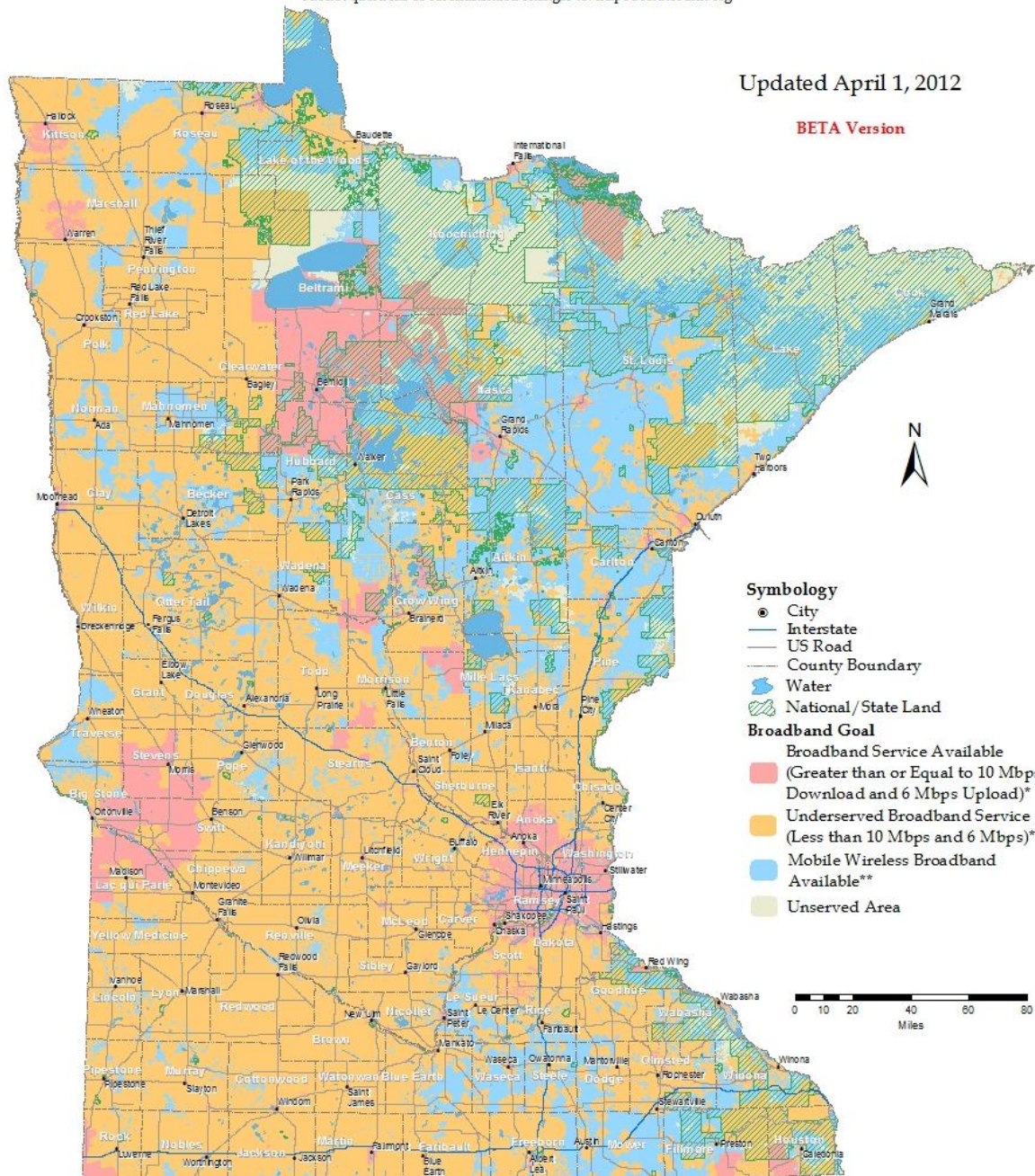
Broadband Service Inventory for the State of Minnesota

Advertised Speeds of at Least 10 Mbps Downstream and 6 Mbps Upstream

Submit questions or recommended changes to: maps@connectmn.org

Updated April 1, 2012

BETA Version



As required by the US Department of Commerce's State Broadband Initiative, if broadband service is available to at least one household in a census block, then for mapping purposes, that census block is reported to have some level of broadband availability. As such, broadband availability at an exact address location cannot be guaranteed. Providers supplying more specific data than census block are displayed as such.

**This map is not a guarantee of coverage, contains areas with no service, and generally predicts where outdoor coverage is available. Equipment, topography and environment affect service.

Map users are encouraged to participate in improving broadband data granularity through data validation and field testing efforts. Learn more about this and other broadband mapping facts at www.connectmn.org.

This map represents areas of broadband service availability determined by ongoing, in-depth technical analysis of provider networks and accommodations for the impact of external factors on service quality. Satellite broadband services may also be available.

*MN Statute 237.012 indicates upload goal of 5 Mbps. Data collection only conforms with speed tiers as represented in the SBI NOFA where 6 Mbps is the most comparable.

© Copyright 2012, State of Minnesota, St. Paul, MN

Used and Displayed by Connect Minnesota, LLC and Connected Nation, Inc. under license agreement

II. Summary of Subgroup Activities

Locations Subgroup

The Task Force determined that a vital component of its work should include outreach across the state in order to review the challenges and opportunities related to broadband in Minnesota; and how broadband (or lack of it) is impacting communities across the state. The Locations Subgroup was tasked with both recommending meeting locations and assisting with coordination of local presenters, outreach opportunities, and additional meeting components.

The Task Force held meetings in the following locations:

- St. Paul
- Bloomington
- Eagan
- Winona
- Deer River/Cass Lake
- Thief River Falls

Meeting locations for the remainder of 2012 include Duluth and the Twin Cities.

The Task Force heard from tribal communities and public school officials in Deer River, telehealth experts in Winona, local government right of way officials in Eagan, and legislative staff in St. Paul; along with other presentations and panels designed to educate the Task Force on issues related to broadband access, adoption and use across the state.

The subgroup, in the remainder of 2012, will continue to assist with meeting planning and moving ahead into 2013, will continue to identify meeting locations and assist with meeting coordination so that the Task Force is receiving the most comprehensive information possible related to the state of broadband in Minnesota.

Coordination Across Government Levels Subgroup

The Task Force is aware that all levels of government – federal, state, local – are involved and engaged on broadband issues in one manner or another. The Coordination Across Government Levels Subgroup is tasked with identification of and outreach to all levels and agencies of government that work on broadband access, adoption and use issues.

Since forming, the subgroup has worked on identifying public sector stakeholders at the federal, state and local levels; associations that represent state-based stakeholders (League of Minnesota Cities, Association of Minnesota Counties, University of Minnesota System, etc.); and associated entities. In addition, the subgroup – via Task Force staff – has done outreach to these organizations and individuals, including sharing Task Force progress with Minnesota legislators, Minnesota congressional staff, other governmental stakeholders, etc. In addition, the subgroup has endeavored to identify and coordinate resources for the formation of a comprehensive public sector “knowledge base” that can ultimately be made available to all interested stakeholders.

The subgroup has, in the short term, focused on “Dig Once” policy and how it might be applied in Minnesota to advance broadband build out in un/underserved areas. The subgroup examined right-of-

way and permitting issues in the state, hearing from experts at the county and state levels of government. In addition, the Task Force heard from staff of Sen. Amy Klobuchar about her work on federal “Dig Once” policy. More details are available below on these issues.

The subgroup will continue to focus on “Dig Once” and how it might be incorporated within Minnesota to minimize bureaucratic inefficiencies while incentivizing build out via cost savings and improved permitting procedures. In addition, the subgroup will focus on enhancing opportunities for engaging public sector officials, including planning to reach out to newly elected and returning federal and state officials after the November 2012 elections to engage these offices and educate them about the work of the Task Force.

For purposes of this report, the following information and ideas were developed by this subgroup and adopted by the Task Force:

Dig Once/ROW/Permitting Issues in Minnesota

One possible strategy for incenting existing providers to build to un- and underserved parts of Minnesota is to look at ways of reducing physical and procedural barriers to the actual construction of backhaul or “middle-mile” infrastructure. These potential areas of opportunity have roughly been categorized into two forms of Rights-of-Way (ROW) access; “Dig Once” policies and permitting processes.

“Dig Once”, in this context, refers to either joint construction of conduit and/or cable runs when road rights-of-way are opened up for various purposes, or to the installation of empty conduit into public rights-of-way during new construction, for the purposes of reducing or eliminating future disturbance of the ROW and/or reducing costs to providers for putting new cable into the ROW. The Task Force has focused on the second of these two definitions of “Dig Once”.

To determine whether ROW access still represents challenges to providers in Minnesota, the Task Force invited industry and public representatives to weigh in on these topics. The outcomes from that discussion suggest that there are indeed real opportunities for local and state governments to have a positive impact on broadband deployment through changes in how Minnesota uses and manages its rights-of-way.

A look at what is happening on the national landscape reveals a substantial amount of activity around this issue. At the federal level, Sen. Amy Klobuchar, along with Sen. Mark Warner of Virginia, advanced a dig once proposal for federal property and rights-of-way that was incorporated into a Presidential Executive Order on June 14, 2012. ([Executive Order 13616](#)) This order requires that federal agencies install broadband conduit during highway construction or expansion projects when appropriate. It also created a Broadband Deployment on Federal Property Working Group whose activities impacting Minnesota ROW owners, providers and policies the Task Force will track in a coordinated manner with personnel from the Minnesota Department of Transportation.

Similar policies are also moving forward at the state level around the country. Arizona is one such state. [AZ SB 1402](#), signed into law in April 2012, broadens Arizona’s Department of Transportation management responsibilities of state ROW to include the transportation of information, as well as vehicles, paving the way for state coordinated installation of shared conduit into their highway ROW. Along a similar vein, Michigan’s Governor Snyder recently signed into law Public Act 138, which allows

for the installation of telecommunications facilities along recreational trails located on state lands. The Task Force has also heard from local governments around the state who are implementing innovative dig once strategies that should be examined for lessons learned and concepts that could be modeled state-wide.

The Task Force's next action on Dig Once will be to convene conversations with the state's ROW managers to determine where the opportunities are to use these assets to encourage broadband construction to the un- and unserved parts of the state. The Task Force is working with the state broadband office to convene these discussions and with Connect Minnesota to identify and map where state ROW coincide with the greatest areas of broadband infrastructure need.

A second area of opportunity to streamline and incent further construction of broadband infrastructure by existing providers centers around the policies, procedures, and permitting processes for gaining access to public ROW by providers engaged in new construction. Conversations with these providers suggest there are areas where further discussion could lead to process improvements that would positively impact the speed of deployment in many areas of our state.

Several years ago a significant amount of work was put in, both by public and private entities, to developing a set of ROW rules (MN Administrative Rules, Chapter 7819³). It has been identified that, while these rules are for the most part still sound, there are opportunities to discuss ways, through their consistent implementation, that infrastructure deployment could be sped up.

Preliminary research suggests that permitting processes and fees are widely inconsistent around the state and between levels of government. While no specific issues have been delineated at this time, it is the recommendation of the Task Force that the state support the convening of broader discussions around these areas. A particular area of interest, that came as a surprise to the Task Force, but met with universal support, is that of finding ways to work together to streamline the process of crossing railroad rights-of-way. Both public and private entities agreed that there is room for discussion on how to work together to make this process more streamlined.

Best Practices/Incentives Subgroup

The Task Force determined that a key area of activity would be to focus on how Minnesota could incent broadband service expansion (both speed and general availability) and adoption. The Best Practices/Broadband Incentives Subgroup was tasked with analyzing best practices and incentives currently employed in other states and/or nationally; and also with developing policy recommendations for the entire Task Force to consider. A number of recommendations, each reviewed and approved by the Task Force as a whole, are included in this report beginning at page 21. Additional recommendations and policy proposals may be included in the December Report.

The subgroup has researched and reviewed policies currently in place across the country designed to bring broadband to underserved or unserved populations. In addition, Task Force members have introduced for discussion a number of potential incentives that would spur broadband deployment in Minnesota. The subgroup also organized a panel of Minnesota legislative staff experts on fiscal and tax

³ <https://www.revisor.mn.gov/rules/?id=7819>

policy to present to the Task Force their thoughts on potential opportunities for incentive policy recommendations that might have a fiscal impact.

In addition to the recommendations already compiled, going forward the subgroup will continue to review incentives being used elsewhere in the country and update the list of potential best practices it believes would be suitable for Minnesota.

State of Broadband—Survey, Research, Data Subgroup

The Task Force is charged with working to implement the state's broadband goals – goals that include Minnesota achieving certain “rankings” as compared with other states and nations; in addition to achieving minimum broadband speeds across the state. In order to monitor Minnesota's standing(s) and progress toward meeting the state broadband goals, the State of Broadband – Survey, Research and Data Subgroup was established to focus on monitoring existing survey and research data.

The Task Force and subgroup knew about the status of Connect Minnesota as the state's designated entity under the State Broadband Initiative (SBI) Program and that as part of Connect Minnesota's work they collect and report to NTIA on broadband availability by speed tiers across the state. In April, Connect Minnesota submitted new data to NTIA that showed Minnesota made incremental progress toward reaching the speed goals of 10 Mbps down/5 Mbps upload. In addition Connect Minnesota conducts an annual Residential Broadband Survey and a Business and Broadband Survey, the results of which give the state and Task Force a picture of access, adoption and use of broadband across a variety of social, demographic and economic sectors.

The subgroup also identified a number of other research and survey tools that will assist the Task Force in monitoring and reporting on Minnesota's progress toward the statutory goals of the state's broadband standing both nationally and internationally. These include, but are not limited to:

- Connect MN/Connected Nation⁴ – These data include aggregated availability and coverage, by advertised speed, including all platforms of broadband. In addition, Connect MN conducts an annual residential and business survey measuring a variety of broadband use and adoption points. The data are presented in county and state formats, both in maps and in spreadsheets and tables. Data is updated twice a year, to coincide with federal NTIA submission requirements.
- CENTER for RURAL POLICY and DEVELOPMENT MN⁵ – The Center has released reports on broadband use and adoption focusing on rural MN, although the last was released in 2010.
- FCC/NTIA⁶ – Both agencies provide data on availability, adoption, and use; these are results of both state-collected efforts (such as Connect Minnesota data/mapping), data filed by providers (example, form 477) and unique research, including the National Broadband Map (although the data reflected in that map is a lag of about six months behind what Minnesota

⁴ www.connectmn.org

⁵ www.ruralmn.org/publications/research-reports/

⁶ www.ntia.doc.gov/category/broadband

and other state mapping reflects). The NTIA is also hoping to have questions added to the Census Bureau's October 2012 Current Population Survey regarding broadband use.

- Pew Internet and American Life Project - The Project produces reports exploring the impact of the Internet on families, communities, work and home, daily life, education, health care, and civic and political life. Their data covers a wide range of issue and topic areas, including who is online, how people use the Internet, etc.⁷
- Akamai Research – Akamai is a cloud-based Internet technology company that also does research on Internet use/trends/etc. at the national and international levels. Primarily, this is done via their quarterly “State of the Internet Report” which is available online and free (with registration). It offers national and international data on use, speed, etc.⁸
- American University - The University's Communication School houses an “Investigative Reporting Workshop” that includes “Connected: The Media and Broadband Project”. They have done research utilizing data filed with the FCC by providers to measure adoption and availability and use data; creating charts, maps, etc.⁹
- OECD – The organization's Directorate for Science, Technology and Industry conducts research and data gathering related to broadband available at the OECD Broadband Portal. Data available includes measures of: penetration, usage, coverage, prices, services and speeds across OECD nations.¹⁰

Finally, the State of Broadband subgroup, in conjunction with the Coordination Across Government Levels subgroup, is working on a survey of the 87 counties in Minnesota to determine: broadband specific initiatives within counties, whether high speed broadband is being used as an economic development tool, how the county may be using broadband to deliver services, what resources counties may be aware of to assist in broadband deployment or use, and whether any partnerships with other local government entities have been established to address broadband access and use. Results of this survey will be presented in the December report.

The subgroup will continue to monitor and collect information from the variety of data sources available during the remainder of 2012 and throughout the Task Force's term.

⁷ www.pewinternet.org/

⁸ www.akamai.com/stateoftheinternet/

⁹ <http://www.investigativereportingworkshop.org/investigations/broadband-adoption/story/poverty-stretches-digital-divide/>

¹⁰ http://www.oecd.org/document/54/0,3746,en_2649_34225_38690102_1_1_1_1,00.html

Broadband Adoption Subgroup

Early on the Task Force identified that, while broadband availability was still an issue in Minnesota, broadband adoption is also an important focus. Over 99 percent of the state's households have some form of broadband available, yet adoption hovers around 72 percent. A closer look at adoption statistics illustrates that adoption rates vary significantly when comparing both geographical and demographic groups. According to the [2012 Connect Minnesota Residential Survey](#) adoption rates for the following groups lag behind the overall state rate of 72%:

- Low-Income: 47%
- Rural: 61%
- Seniors: 32%
- Disabled Populations: 45%
- Hispanics: 49%

This subgroup was established to identify: what groups are actively promoting broadband adoption, existing broadband initiatives in the state and how to take advantage of them, data available on the economic impact of broadband, and other strategies to expand broadband use. Below and in appendices A to D are the findings of this subgroup to date.

Groups Promoting Broadband Adoption

A number of organizations across the state are working to improve digital literacy through the implementation of various programs and areas of focus. These programs include, but are not limited to the following, with a more complete description of each in Appendix A:

- Adult Basic Education (ABE)
- CenturyLink Internet Basics
- Comcast Internet Essentials
- Community Education – computer related courses
- Community Technology Empowerment Project (CTEP) AmeriCorp
- Computer Commuter Program in Lac qui Parle County
- Connect Minnesota's Every Community Online Program
- Digital Inclusion Fund (Minneapolis Foundation/City of Minneapolis)
- Free Geek Twin Cities
- Learners Web—Minnesota Literacy Council
- Libraries
- Minnesota Computers for Schools
- Minnesota Department of Employment and Economic Development workforce centers
- Minnesota Intelligent Rural Communities (MIRC) Project (sun setting December 31, 2012)
- Minnesota Learning Commons
- PCs for People
- St. Paul Community Literacy Consortium
- Technology Literacy Collaborative (TLC)
- University of Minnesota Broadband Access Project (BAP)

Existing Broadband Initiatives

Several organizations (private, public and nonprofit), with some receiving American Recovery and Reinvestment Act (ARRA) monies and others with another funding source, were identified as working to advance broadband efforts.

Various organizations and companies across Minnesota were awarded ARRA grants through the National Telecommunications & Information Administration (NTIA). The type of grant included funding for Sustainable Adoption, Broadband Data & Development, Infrastructure, and Public Computer Centers. The table below lists the grantee along with the award and type of program – see Appendix B for a detailed listing of each program. (The specific status of all Minnesota ARRA projects—including those funded through NTIA, as well as those infrastructure projects funded through the Rural Utilities Service of the U.S. Department of Agriculture--were updated in the Task Force's December 2011 report and will be updated again in the December 2012 report.)

Table 2: List of ARRA Broadband Technology Improvement Program (BTOP) Projects in Minnesota

TYPE	TOTAL AWARD	GRANTEE
Sustainable Adoption	\$4,858,219	C.K. Blandin Foundation
Sustainable Adoption	\$14,988,657	Communication Service for the Deaf, Inc.
Broadband Data & Development	\$4,470,035	Connected Nation (Minnesota)
Infrastructure	\$5,995,600	County of Carver
Infrastructure	\$16,822,437	Enventis Telecom, Inc.
Infrastructure	\$69,639,291	Merit Network, Inc.
Public Computer Centers	\$3,724,128	Mission Economic Development Agency
Sustainable Adoption	\$28,519,482	One Economy Corporation
Sustainable Adoption	\$3,318,031	Portland State University
Public Computer Centers	\$2,862,333	Regents of the University of Minnesota
Infrastructure	\$62,540,162	University Corporation for Advanced Internet Development
Infrastructure	\$13,382,593	Zayo Bandwidth, LLC

As identified in the December 2011 Task Force Report, there have been a number of private sector national initiatives affecting Minnesota designed to address broadband adoption. Comcast, CenturyLink and other providers have programs in place to offer low-cost home Internet service and discounted computers to low-income families. In addition, a number of Minnesota providers have partnered with the Connect2Compete program to offer digital literacy training along with discounted service and computers.

This subgroup, also, tried to identify steps to ensure that Minnesota is well positioned to take advantage of federal level initiatives, such as the FCC's Connect2Compete program. Based on efforts undertaken by the Task Force this past year to identify federal level initiatives and to keep abreast of happenings within other states, the Task Force believes that there should be a permanent on-going resource dedicated to

this effort. This resource could reside within the Minnesota Department of Commerce and would include a central knowledgebase created to house and consolidate information. Interested parties would know they could come to this resource for information.

Below are some examples of the type of information that could be included in a central knowledgebase:

- CenturyLink accepting FCC Connect America Funds Phase I
- Digital inclusion efforts in Minnesota
- Connect2Compete¹¹
- MIRC – funding for small business workshop to explain how to have a web site for the business (e.g., Facebook) and ongoing efforts by the Blandin Foundation, such as its new Blandin Community Broadband Program (BCBP)
- Google will do small business training¹²
- Google for non-profits¹³
- Extension service has and still distributes a program called Main Street MN¹⁴
- Grants that were awarded for Sustainable Broadband adoption¹⁵

Economic Impact of Broadband

The subgroup was also tasked with determining the economic impact of broadband by reviewing existing economic data (Minnesota specific and other) on the impact of advanced applications on private sector economy and public sector budgets to provide support for broadband expansion. Some of the findings of the subgroup to-date include:

- The Internet economy will grow more than 10% a year through 2016 according to a new report published by the Boston Consulting Group.
- The Internet accounted for \$684 billion, or 4.7% of all U.S. economic activity in 2010, Boston Consulting Group found. By way of comparison, the federal government, contributed \$625 billion, or 4.3%, to the nation's output.¹⁶
- Rural communities that had greater broadband Internet access had greater economic growth. See Broadband Internet Value for Rural America, Aug. 2009.¹⁷
- In 2011, the University of Minnesota Extension conducted a survey of the members of the Minnesota Telecom Alliance. This study focused on the economic contribution of telecommunication companies with customers in Greater Minnesota. The survey results were used to calculate the economic contribution of the industry. Results indicate that the total estimated economic contribution of the telecommunications industry serving Greater Minnesota, in 2011, was \$1.3 billion¹⁸.

¹¹ <http://www.connect2compete.com/>

¹² www.google.com/business/index.html

¹³ <http://www.google.com/nonprofits/>

¹⁴ www.extension.umn.edu/mainstreet/curriculum.html

¹⁵ <http://www2.ntia.doc.gov/sustainableadoption>

¹⁶ http://www.money.cnn.com/2012/03/19/news/economy/internet_economy/index.htm

¹⁷ <http://www.ers.usda.gov/publications/err78/>

¹⁸ www.ruralmn.org/publications/research-reports/telecommunication/

- Seventy-three percent of businesses in Minnesota use broadband. Thirty percent of Minnesota businesses allow employees to do some type of telework.¹⁹
- Online sales in Minnesota account for approximately \$6.2 billion in annual sales revenue, including approximately \$1.1 billion for small businesses with fewer than five employees.²⁰

Strategies to Expand Broadband Adoption

Finally, as part of its review of strategies to expand broadband use, the subgroup first looked at areas that may require specific focus and then developed some tools that could be used to target these areas.

The Task Force believes that it is important to understand statistically, where the State is at in terms of broadband adoption in order to determine what can and/or should be done to improve broadband adoption and digital literacy across Minnesota. The map below depicts broadband speed data from Connect Minnesota overlaid with broadband adoption percentages from FCC and Census data²¹. Currently, there is only one county (Benton) with an 80-100% adoption rate.

The map can be used as a starting point to determine the status of specific counties and to identify those counties and/or areas where broadband adoption efforts may be most beneficial.

¹⁹ www.connectmn.org/survey-results/business

²⁰ Id.

²¹ <http://www.iwatchnews.org/node/8484>



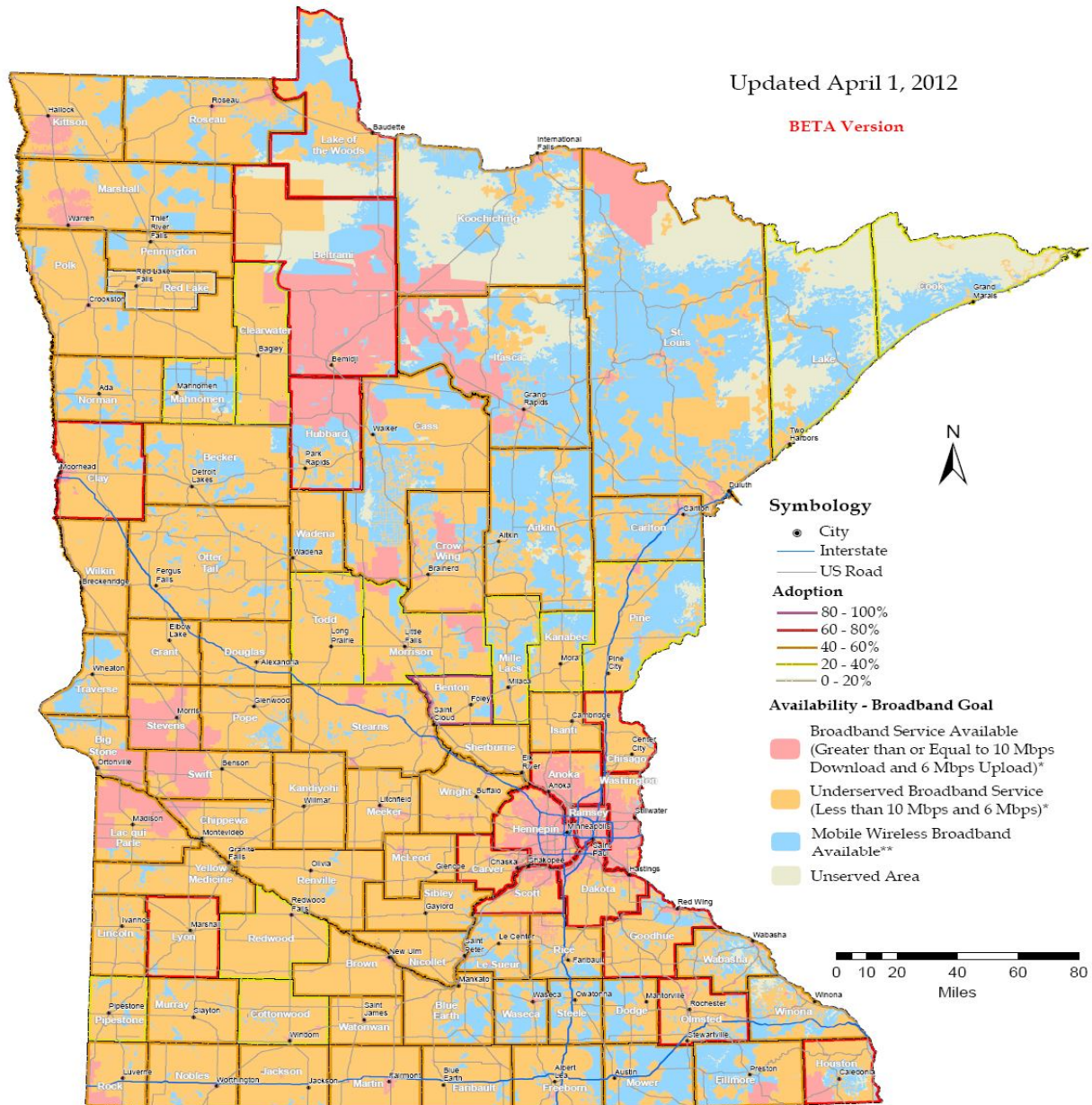
Broadband Service Inventory for the State of Minnesota

Advertised Speeds of at Least 10 Mbps Downstream and 6 Mbps Upstream

Submit questions or recommended changes to: maps@connectmn.org

Updated April 1, 2012

BETA Version



As required by the US Department of Commerce's State Broadband Initiative, if broadband service is available to at least one household in a census block, then for mapping purposes, that census block is reported to have some level of broadband availability. As such, broadband availability at an exact address location cannot be guaranteed. Providers supplying more specific data than census block are displayed as such.

Map users are encouraged to participate in improving broadband data granularity through data validation and field testing efforts. Learn more about this and other broadband mapping facts at www.connectmn.org.

Broadband adoption rates are based on the 768 Kbps download/200 Kbps upload standard and are from the Federal Communications Commission's Form 477 data.

This map represents areas of broadband service availability determined by ongoing, in-depth technical analysis of provider networks and accommodations for the impact of external factors on service quality. Satellite broadband services may also be available.

* MN Statute 237.012 indicates upload goal of 5 Mbps.

Data collection only conforms with speed tiers as represented in the SBI NOFA where 6 Mbps is the most comparable.

**This map is not a guarantee of coverage, contains areas with no service, and generally predicts where outdoor coverage is available. Equipment, topography and environment affect service.

© Copyright 2012, State of Minnesota, St. Paul, MN
Used and Displayed by Connect Minnesota, LLC
and Connected Nation, Inc. under license agreement

Additional Adoption Strategies

The subgroup also looked at building awareness in regards to improving broadband adoption in a targeted manner through the following mechanisms. The items listed below may ultimately be part of a Broadband Adoption Toolkit that communities and/or Minnesota residents can choose from.

a. County Internet, Phone, and Cable Directory

As part of the MIRC efforts within Benton County, the county created a directory as a point of reference – see Appendix C. As an experiment, the Task Force created a similar directory for Itasca County – see Appendix D, which was one of the outstate locations that was visited by the Task Force. The directory was made available to attendees and also distributed electronically to the Itasca Economic Development Corporation, community education, city hall and the local chamber of commerce. The Task Force recommends that a directory be created for each county and be made available online and in print. Specific distribution mediums can be determined by each county.

b. Online Broadband Awareness Site

The Task Force is currently working to create a central repository of digital literacy information. The goals include:

- Build awareness – educate Minnesota residents on what broadband enables; e.g., connecting with family and friends via video conferencing (Skype), online access to ordering/prescription refills, applying for jobs, access to government/civic engagement.
- Increasing broadband adoption in areas where it's accessible.
- Increase utilization by increasing the sophistication of use; e.g., distance learning programs, build businesses online presence, and job seekers applying online.
- Identify public access sites and ensure residents are aware of what their local communities offer in regards to digital literacy and training.
- Community calendars.

c. Workshops and/or Instructor Lead Training

There are a number of online and instructor based training programs that are currently available. The Task Force will identify and make available those programs through the Online Broadband Awareness Site. Programs include, but are not limited to, community education, provider programs, library offerings, and community sponsored events.

The subgroup will continue to work to develop the initiatives listed above throughout the remainder of 2012. In preparation for the December Task Force report, the subgroup will also focus on compiling the most current data related to broadband adoption in Minnesota. During the term of the Task Force, the subgroup will be focused on critical analysis of issues related to expansion of adoption and on recommendations to enhance adoption across Minnesota.

Monitor/Understand Impact of FCC & PUC Decisions; Cost of Broadband Subgroup

The Monitor/Understand Impact of Federal Communications Commission (FCC) & Public Utilities Commission (PUC) Decisions; Cost of Broadband Subgroup has met consistently during breakout sessions at the monthly Task Force meetings, scheduled conference calls, and shared information by email. Early on, and to best inform the Task Force of work being done by various organizations represented by individuals on the Task Force, members were asked to share research, white papers, position statements, etc. that would assist in interpreting and understanding FCC decisions impacting broadband.

While the January 31, 2012 Broadband Plan Outline did not call for a specific deliverable from this subgroup for this September report, an update of Federal Communications Commission (FCC) and Minnesota Public Utilities Commission (PUC) activities, and recent cost compilations, can only assist the work of the Task Force in its next step of preparing a Broadband Plan by December 2012. Therefore, a brief summary of this information is below.

Connected Nation also provided an analysis of FCC CAF Phase I and Phase II.²²

FCC CAF Phase I

In Phase I of the transition to the Connect America Fund (CAF), the FCC made available \$300 million to price cap carriers for broadband deployment. Under the funding guidelines, a price cap carrier could apply to receive \$775 per new location served with broadband at 4Mbps download/1Mbps upload. A new location was defined as one that did not currently have service of at least 768Kbps download and 200Kbps upload from any wireline or fixed wireless provider. Notification from the price cap carriers of how many new locations they would serve towards their allotted amount was due to the FCC by July 24, 2012.

There are three price cap carriers eligible for such funding that serve in Minnesota: CenturyLink, Frontier and Windstream. Of the three, only CenturyLink indicated intent to accept CAF Phase I funding to deploy broadband in Minnesota. Specifically, CenturyLink has filed with the FCC to accept \$10,956,175 to deploy broadband to 14,137 locations in Minnesota that are currently unserved or underserved. CenturyLink also has an outstanding waiver request, that if granted, CenturyLink would commit to serve an additional 10,174 locations with \$7,884,850 in additional CAF Phase I funds.

Phase I Mobility Auction

Auction 901, the Mobility Fund Phase I auction, is scheduled to commence on September 27, 2012. The FCC has released maps showing what census blocks are eligible for build out in the auction. Bidders need to be certified as Eligible Telecommunications Carriers (ETCs) in order to participate in the bidding and file applications with the FCC. For Minnesota, it appears that only T-Mobile has the necessary ETC designation and application pending at the FCC to participate. Sprint, Verizon and AT&T, the three other large wireless providers that could participate in the auction, are apparently not planning to do so for Minnesota census blocks.

²² www.connectednation.org/data-center-policy

CAF Phase II

The details for all components of CAF Phase II (price cap carrier, rate of return carrier, mobility) continue to be developed.

CenturyLink Merger Commitments

FCC: As part of its approval of the CenturyLink acquisition of Qwest, the FCC required the company to offer discounted Internet service and reduced cost computers. That program, Internet Basics, has rolled out in Minnesota. CenturyLink offers Internet service for \$9.95, Internet-ready netbooks for \$150, and training to low income households where broadband service is available.²³

PUC: As part of its approval of the CenturyLink acquisition of Qwest, the PUC required the company to expend \$50 million to deploy broadband within five years of the PUC's approval, with at least one-third of that investment going to areas that were unserved (no wireline broadband service available) or underserved (broadband wireline service up to 1.5Mbps). In May, CenturyLink submitted its initial filing summarizing its investment. According to that filing, which remains under review, the company spent \$28 million on broadband deployment or expansion with \$3.4 million of that amount in areas that were unserved or underserved.

Cost of Broadband

In an attempt to show the cost to deploy broadband, the subgroup requested an update from Elert and Associates of a chart that had been presented in the 2009 report of the Minnesota Ultra High Speed Broadband Task Force (at p. 73 of that report²⁴). Both charts are provided below. It must be noted that they provide representative costs only; individual costs vary greatly based on type of technology used, population density, geography, topology, etc. The tables do demonstrate two trends: the advances in technology as the addition of cellular wireless in 2012 represents that wireless (LTE) technology is now capable of delivering broadband at the state's speed goals (minimum 10 Mbps download and 5 Mbps upload) and a review of the costs for the same technologies generally shows a decrease in cost.

²³ www.centurylink.com/home/internetbasics/

²⁴ www.connectmn.org/sites/default/files/connected-nation/Minnesota/files/broadband_report_final_6nov09.pdf

2012 Updated Cost per household or business passed

Note: HFC and ADSL2+ assume upgrades or additions to existing infrastructure rather than entirely new builds.

Table 3: 2012 Cost Per Household or Business Passed

	FTTP/FTTH	Hybrid Fiber Coax (DOCSIS 3)	ADSL2+ (ICT ²⁵)	Wi-Fi/Fixed Wireless ²⁶	Cellular Wireless (LTE)
Urban	\$2,500 (ICT \$2,500)	\$500 (ICT \$620)	\$320	\$250	\$500
Suburban	\$2,500 ²⁷ (ICT \$4,800)	\$1,000 (ICT \$1,240)	\$520	\$600	\$600
Rural	\$6,000 ²⁸ (ICT \$14,800)	\$2,500 (ICT \$3,090)	\$1,700	\$1,000	\$775+

Table 4: 2009 Cost Per Household or Business Passed

	FTTP/FTTH	Hybrid Fiber Coax (DOCSIS 3)	VDSL2	Wi-Fi 802.11g
Urban	\$2,000	\$500	No basis data	\$150
Suburban	\$4,000	\$1,000	No basis data	\$300
Rural	\$12,000	\$2,500	No basis data	\$900

As individual examples of cost, a new fiber build to farms and small towns in Sibley County in Minnesota's south central farmland area is projected to cost \$6,000 per household. And, recent figures compiled by AT&T for deployment of LTE in Minnesota have as a baseline cost approximately \$775 per household passed.

As there continues to be substantial activity at the federal level in developing the Connect America Fund, the subgroup will have an ongoing task of monitoring and understanding how such developments affect Minnesota. The subgroup will also continue to work to provide updated costs concerning the various technologies used for deploying broadband.

²⁵ The ICT figures are from the ICT Regulation Toolkit <http://www.ictregulationtoolkit.org/en/index.html> (May 2012) and were converted from Euros at 1.24 dollars per Euro. This Toolkit is a joint production of infoDev (World Bank Group) and the International Telecommunications Union (ITU).

²⁶ Fixed wireless costs can vary greatly depending on the availability of towers. This estimate assumes use of existing poles and/or towers.

²⁷ Despite greater population density in urban areas, urban FTTH installation costs are often equivalent to suburban due to construction challenges.

²⁸ The \$6,000 figure is based on several broadband stimulus projects, as well as a Vantage Point study conducted in 2011. In the Nebraska Rural Independent Companies' Capital Expenditure Study conducted by Vantage Point www.bbpmag.com/docs2011/vantage%20Point%20model%20background.pdf there is no distinction between Urban and Suburban; their "in-town" estimate is \$4,438 and their rural area estimate is \$9,286. The ICT's rather high figure for rural FTTH installation may be attributable to terrain challenges in Europe.

III. Specific Policy Recommendations

The following policy recommendations represent the consensus of the Task Force. The Task Force determined that presenting the policy recommendations in the September Report would allow the Governor, Legislators and stakeholders ample time to review and incorporate specific policies as they prepare for the 2013 Legislative Session. The recommendations were developed by the Best Practices/Incentives subgroup, then discussed and approved by the Task Force at their September 2012 meeting for inclusion in this report.

Education

- Increase funding to public libraries and schools for computer stations and Internet access to address what can be a primary access point for the “digitally disadvantaged” and reward institutions that increase hours and develop programs to improve access.
- Award scholarship dollars for broadband access for students, especially those that meet federal poverty guidelines. Again, the playing field will be most level when all students have access to high speed Internet. (Funds could be leveraged with tax credits to companies that also subsidize these programs.)
- Education Tax Credit for Broadband – (SF 979/HF 1237 in 2010) Expand the current list of education tax credits to include monthly broadband service. Currently, Minnesota taxpayers can receive a credit of up to \$1,500 for education related expenses. This proposal would not expand the size of the credit; just the list of eligible items to include broadband service. Broadband adoption continues to be an issue with lower income residents. This credit would help increase the number of consumers who either are on the fence about getting broadband service or in a financial situation where they have to consider giving up the service.

Infrastructure Investment

- Provide a tax credit or grant to incent broadband providers to build in unserved areas. Examples include the Mississippi broadband technology tax credit,²⁹ the Idaho matching grant program³⁰ and the Wisconsin sales tax exemption and income tax credit³¹. Coordinate with Connect Minnesota to provide target areas that are not served and keep these areas in the forefront of the state’s efforts. Lists should be published by county/census tract at a designated frequency.
- Extending the central office equipment exemption to the purchase of fiber optics and broadband equipment – Minnesota currently has a sales tax exemption on equipment purchased for use in a central office. The exemption does not apply to fiber optics which are

²⁹ <http://www.mississippi.org/mda-library-resources/finance-tax-info/tax-exemptions-incentives-and-credits/broadband-technology-tax-credit.html>

³⁰ www.legislature.idaho.gov/idstat/Title63/T63CH30SECT63-3029I.htm

³¹ <http://docs.legis.wisconsin.gov/2005/related/lcactmemo/sb483.pdf>

necessary to deploy higher bandwidth speeds that meet the state broadband goals. The 2009 Broadband Task Force Report stated that state tax incentives encourage deployment as well as adoption (2009 Report, page 78³²).

- A program or mechanism that would coordinate rural broadband installation with State and Federal programs assisting hospitals, schools, libraries, public safety, etc. in obtaining broadband.
- Implement a formal process (see “Dig Once” discussion above) to coordinate highway construction projects and broadband deployment. As an example, Arizona implemented [SB1402](#) or the “Digital Arizona Highways Act of 2012” which allows the state to install broadband conduit in connection with a rural highway construction project if funding is received to cover the cost.
- Develop a data base similar to the California Fiber Collaboration Database³³. The Fiber Collaboration Database allows broadband providers to view upcoming construction projects, notify Caltrans of their interest in including broadband infrastructure in the project, and provides an opportunity for collaboration among companies interested in joint trenching opportunities.

Health Care

- Provide incentive for rural sites that collaborate together for broadband projects, telehealth services, interoperability and information exchange.

Adoption

- Facilitate public/private partnership program(s) designed to deliver free or discounted computers to disadvantaged K-12 children in Minnesota. Examples include: provider-led discount offers (Comcast Internet Essentials, CenturyLink Internet Basics); non-profit efforts (Connect Minnesota’s Every Community Online, PC’s for People, Connect2Compete). The Connect Kentucky Computers 4 Kids (C4K)³⁴ is, also, an example of a program that has successfully fostered cooperation among private partners, corporate foundations and state government to place free computers into the hands of underprivileged and disadvantaged children.

³² www.connectmn.org/sites/default/files/connected-nation/Minnesota/files/broadband_report_final_6nov09.pdf

³³ www.dot.ca.gov/broadband/

³⁴ www.connectkentucky.org/what_we_do/computers_4_kids/

- The Minnesota Broadband Task Force (2009 Report, page 90³⁵) encouraged the legislature to consider public/private partnership models to make funding available for technology training, production and adoption in communities at the margins of technology. Could include training local nonprofits and agencies who work with the communities in need of digital literacy training. One example is the Washington D.C. digital inclusion grant program.³⁶

Ongoing Resources

- In its January 2012 Report, the Task Force identified the establishment of an ongoing, post-Task Force mechanism within state government for high-speed broadband focused efforts as a future recommendation. The current consensus of the Task Force is in support of establishing such a resource; and of working to identify what type of entity would best serve the state so that a focus on broadband will remain an ongoing concern. The Task Force, therefore, will explore a variety of potential ongoing mechanisms with a plan to present and recommend options in a future report.

IV. **Task Force Work Plan to Prepare Broadband Plan and Annual Report by December 12, 2012**

The Task Force will continue to meet monthly as it prepares for submitting the inaugural Broadband Plan and Annual Report to Governor Dayton on December 12, 2012. Meetings are scheduled at the following locations:

October 2012 – Twin Cities

November 2012 – Duluth, MN (in conjunction with the Connect Minnesota-Blandin Foundation 2012 Broadband Conference)

December 2012 – Twin Citie

³⁵ www.connectmn.org/sites/default/files/connected-nation/Minnesota/files/broadband_report_final_6nov09.pdf

³⁶ www.cqstatetrack.com/texis/redir?id=4d9d1c3a80a9

Appendices

Appendix A

The Task Force identified a number of organizations working to improve digital literacy through the implementation of various programs and areas of focus across the State. These programs include but are not limited to the following.

- **Adult Basic Education (ABE)**³⁷ is available state wide at no cost to adult learners and is administered through the Minnesota Department of Education
- **CenturyLink Internet Basics**³⁸
Provides Internet service for up to one year at \$9.95 per month plus taxes and fees in areas where CenturyLink has deployed broadband and to customers that qualify for the Telephone Assistance Plan (TAP) or Lifeline. A netbook is also available for \$150.
- **Comcast Internet Essentials**³⁹
Provides residential Internet service at \$9.95 per month to families with children who qualify for free lunches under the National School Lunch Program as long as the children remain in school. A voucher to purchase a low-cost computer for \$149.99 and access to free digital literacy training is also made available.
- **Community Technology Empowerment Project (CTEP) AmeriCorp**⁴⁰ – the AmeriCorps Community Technology Empowerment Project bridges the digital divide for recent immigrants and low-income communities in Minneapolis and St. Paul Minnesota. AmeriCorps members help youth and adults use technology to better access social, civic, educational, and economic opportunities.
- **Computer commuter program in Lac Qui Parle County**⁴¹
The LqP Computer Commuter is a mobile computer lab that tours Lac qui Parle to provide computer training and assistance to residents and local businesses especially in the communities of Bellingham, Boyd, Dawson, Madison, Marietta and Nassau.
- **Connect Minnesota's Every Community Online Project**⁴²
Allows any Minnesotan the ability to access self-paced online digital literacy training, and provides access to information on discounted access to broadband from participating providers and discounted, refurbished computers.
- **Digital Inclusion Fund (Minneapolis Foundation/City of Minneapolis)**⁴³
The Digital Inclusion Fund is designed to increase technology access and skills among non-traditional users of technology in Minneapolis, including people with disabilities, people of color, low-income individuals, new immigrants, displaced workers, seniors and others.
- **Free Geek Twin Cities**⁴⁴
The mission at Free Geek Twin Cities is to reuse or recycle computers and to provide access to computers, the Internet, education and job skills in exchange for community service.

³⁷ education.state.mn.us/AdultBasicEdFinder/

³⁸ <http://www.centurylink.com/home/internetbasics/>

³⁹ <http://internetessentials.com/default.aspx>

⁴⁰ <http://wip.technologypower.org/>

⁴¹ www.lqpeda.com/broadband-initiative/computer-commuter/

⁴² <http://www.connectmn.org/every-community-online>

⁴³ digitalinclusionfund.tmfportal.org/default.aspx

⁴⁴ freegeektwincities.org/

- **Learners Web – Minnesota Literacy Council**⁴⁵
Their mission is to share the power of learning through education, community building and advocacy
- **Libraries** – there are about 360 public library buildings in Minnesota.⁴⁶
Public libraries are playing a vital role in bridging the digital divide, the gap between “haves” and “have nots” in the digital age. The majority of libraries in Minnesota provide free access to workstations and Internet services to those who could not otherwise access these resources. In addition, public libraries also provide training and assistance to those who lack technology skills or who have difficulty using Internet services.
- **Minnesota Computers for Schools**⁴⁷
In partnership with the Minnesota Correctional Facility - Stillwater, Minnesota Computers for Schools trains inmates at the facility to refurbish and upgrade computer hardware donated by businesses. Components that are not refurbished are recycled. The refurbished systems provide affordable technology solutions for Minnesota K-12 public, private and charter schools, educational nonprofit organizations serving disadvantaged youth and students with special needs.
- **Minnesota Department of Employment and Economic Development**⁴⁸
DEED is developing and supporting the Workforce Center-focused digital literacy training.

⁴⁵ www.mnliteracy.org/educators/adult/technology/blog

⁴⁶ www.publiclibraries.com/minnesota.htm

⁴⁷ www.mncfs.org/

⁴⁸ equella.mnlearningcommons.org/mnnc/file/7196d5ae-08f3-943f-aa69-53052cf83753/2/MIRC_DLMENU.zip/Index.html

- **Minnesota Intelligent Rural Communities (MIRC) Project⁴⁹** – funded by the U.S. Department of Commerce through the Blandin Foundation to increase broadband adoption and digital literacy. Project details available at:



- **Minnesota Learning Commons⁵⁰**
Created to provide access to effective and efficient online learning. The public education partners include Minnesota State Colleges and Universities, University of Minnesota and Minnesota Department of Education along with Public K-12 schools. The partnership also enhances the collaborative efforts of faculty, administration and staff by providing free relevant online resources. This site references a Digital Literacy site⁵¹.
- **PCs for People⁵²**
PCs for People is a 501(C)(3) non-profit corporation with offices in St. Paul and Mankato, MN. PCs for People takes donated computers and rebuilds, refurbishes and redistributes them to people with limited access to technology. PCs for People provides educational experience, work training, internships, as well as volunteer opportunities. This allows people to give something back to the community and increase their knowledge of computers in doing so.

⁴⁹ http://broadband.blandinfoundation.org/_uls/resources/DCProjectMatrix_July_2011.pdf

⁵⁰ www.mnlearningcommons.org/

⁵¹ www.digitalliteracy.project.mnscu.edu/

⁵² www.pcsforpeople.com/index.php

- **Saint Paul Community Literacy Consortium**⁵³

The Saint Paul Community Literacy Consortium empowers the community by building literacy in a collaborative, inclusive, comprehensive manner. Enhanced literacy and improved basic skills support a high quality of life by providing preparation for meaningful employment and higher education, fostering better K12 outcomes and stronger families, and supporting economic development.

- **Technology Literacy Collaborative (TLC)**⁵⁴

TLC is a network of digital inclusion supporters committed to sharing best practices, advocating for technology literacy skills and access, and promoting collaborative efforts. The mission of the TLC is to promote digital inclusion.

- **University of Minnesota Broadband Access Project (BAP)**⁵⁵

The Broadband Access Project is a \$3.6-million initiative of the University of Minnesota's Urban Research and Outreach-Engagement Center (UROC) to improve high-speed Internet (broadband) access, awareness, and use in four federally designated poverty zones in Minneapolis and St. Paul. The project supports development and enhancements of 11 community-based public computer centers ([see map](#)) for underserved populations, including African-Americans, Latinos, American Indian, and Asian and African immigrants. The goal of the BAP is to help eliminate the digital divide by enhancing and expanding access to high-speed Internet (broadband) in underserved communities to expand access to information about employment, education, health, and community and economic development. The project will open doors, enhance lives, and create access and job opportunities through technology.

⁵³ www2.spclc.org/

⁵⁴ tlc-mn.org/

⁵⁵ www.uroc.umn.edu/programs/bap.html

Appendix B

C.K. Blandin Foundation

Sustainable Adoption \$4,858,219

Project serves: Minnesota

The C.K. Blandin Foundation plans to launch the Minnesota Intelligent Rural Communities initiative, a multi-sector, comprehensive approach to sustainable broadband adoption targeting residents, small businesses, local governments, and critical services providers in rural Minnesota. The initiative expects to reach each of Minnesota's 80 rural counties through education, training, technical assistance, and by removing barriers to broadband adoption. The project anticipates training as many as 2,500 individuals in computer literacy, online education, and workforce development, and plans to distribute 1,000 affordable refurbished computers to low-income, rural Minnesota residents. Funding will support the development of institutional broadband applications for schools and health care facilities to help increase broadband adoption. The U.S. Department of Commerce's Economic Development Administration (EDA) Center at the University of Minnesota, Crookston will help track the impact of the project, including the number of subscribers generated.

Communication Service for the Deaf, Inc.

Sustainable Adoption \$14,988,657

Project serves: Alabama, Alaska, American

Samoa, Arizona, Arkansas, California, Colorado, Commonwealth of the Northern Mariana

Islands, Connecticut, Delaware, District of

Columbia, Florida, Georgia, Guam, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Ma

ine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada,

New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma,

Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South

Dakota, Tennessee, Texas, U.S. Virgin Islands, Utah, Vermont, Virginia, Washington, West

Virginia, Wisconsin, Wyoming

Broadband's ability to expand educational and employment opportunities is especially meaningful for Americans who are deaf or hard of hearing, a community that faces unique challenges in education and that suffers from a rate of unemployment much higher than the national average. Communication Service for the Deaf, Inc. (CSD) intends to expand broadband adoption among people who are deaf and hard of hearing and provide them with online tools to more fully participate in the digital economy. The project proposes to employ a combination of discounted broadband service and specialized computers, technology training from an online state-of-the art support center customized to the community's needs, public access to videophones at anchor institutions from coast to coast, and a nationwide outreach initiative. Thousands will gain online access to all the Internet has to offer, including sign language interpreters, captioned video services, and other content and functionalities designed especially to advance their educational, employment, and healthcare interests.

Connected Nation (Minnesota)

Broadband Data & Development \$4,470,035

Project serves: Minnesota

Project Components

State Broadband Capacity Building:

This project will support the work of the 15 member Minnesota Broadband Advisory Task Force in carrying out its functions, including the production of its annual progress report benchmarking progress toward meeting Minnesota's 2015 broadband goals of a minimum of 10-20 MB to all residents and businesses.

Technical Assistance:

This funding will support two major activities in Minnesota: an annual broadband summit and an in-depth county-level research that will be peer reviewed by a qualified Minnesota-based marketing and research institution.

Data Collection, Integration, and Validation:

This project was originally funded for broadband planning activities and two years of data collection. In September of 2010, this project was amended to extend data collection activities for an additional three years and to identify and implement best practices.

County of Carver

Infrastructure \$5,995,600

Project serves: Minnesota

The Carver County Open Fiber Initiative, a partnership between the county, affiliated city governments, and Jaguar Communications, a for-profit small business, proposes to build a high-speed fiber optic network across the south-central Minnesota county, bringing advanced services to its key community organizations. The project plans to connect schools, libraries, and community colleges, including the Waconia Library and the South Metro campus of the Dunwoody College of Technology, to improve educational services, distance learning, and remote teaching. The project also proposes to construct 121 miles of new fiber that will be open to as many as nine last-mile providers in the region in order to improve commercial broadband availability and adoption.

Enventis Telecom, Inc.

Infrastructure \$16,822,437

Project serves: Minnesota

Many key community organizations located in rural Minnesota towns such as Detroit Lakes, Luverne, Hinckley, and Wabasha report limited access to low cost high-speed broadband services. Enventis Telecom, as part of the Greater Minnesota Broadband Collaborative, proposes to construct a brand new 428-mile fiber network that would provide middle-mile service at speeds of up to 10 Gbps and enable connections to anchor institutions and businesses across a 23-county area of the state. The project intends to expand distance learning and training opportunities throughout the state, while offering high-capacity services to community organizations in the area.

Among the anchor institutions already committed to working directly with the grantee and its partner the State of Minnesota's Office of Enterprise Technology are the University of Minnesota at Duluth, Little Falls Police Department, and St. Gabriel's Hospital.

Merit Network, Inc.

Infrastructure \$69,639,291

Project serves: Michigan, Minnesota, Wisconsin

Community anchor institutions in rural northern Michigan often face high costs and/or limited Internet technology options, resulting in inadequate service for organizations in this economically distressed region. Merit Network proposes to address this problem by constructing a 1,210-mile fiber network offering speeds between 100 Mbps and 10 Gbps in Michigan's Upper Peninsula and Lower Northern Peninsula, with additional connections to research and educational networks in Green Bay, Wisconsin and Duluth, Minnesota. Merit, whose existing network serves many of Michigan's government, public safety, and health care organizations, plans to connect 61 anchor institutions, including public universities, community colleges, K-12 schools, libraries, health research institutions, Michigan's Next Generation 911 system, and various local governments.

Mission Economic Development Agency

Public Computer Centers \$3,724,128

Project serves: Arizona, California, Colorado, Idaho, Maryland, Minnesota, Missouri, New Mexico, Pennsylvania, Texas

The Mission Economic Development Agency, in collaboration with the National Association for Latino Community Asset Builders and a national network of Latino-serving economic development organizations, plans to create 12 new public computer centers and expand five existing ones in 13 communities throughout the United States. Each center expects to operate on the project's centrally managed network and provide computer training and adult education to a low broadband adoption, high

unemployment target population through a standardized English-Spanish training curriculum. The project expects to add a total of 263 new workstations and replace 37 existing workstations, enabling the centers to serve an additional 2,500 users per week and train an estimated 3,000 users per year. Broadband capabilities at each center will be increased to speeds of 1.5 Mbps. Public computer centers funded through this grant will be located in Phoenix, AZ; Canoga Park, Los Angeles, and San Francisco, CA; Del Norte, CO; Blackfoot, ID; Wheaton, MD; Minneapolis, MN; Kansas City, MO; Anthony, NM; Philadelphia, PA; and San Antonio and Laredo, TX.

One Economy Corporation

Sustainable Adoption \$28,519,482

Project serves: Alabama, Arkansas, California, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, Wisconsin

The 21st Century Information and Support Ecosystem project proposes to implement a comprehensive program of computer training, wireless Internet access, broadband awareness marketing, and online content and applications to residents of 159 affordable and public housing developments and low-income communities in 50 cities and towns across 31 states and the District of Columbia. The project plans to implement four principal programs: training 2,500 youth to become “Digital Connectors” who will then provide digital literacy training to others in their communities; deploying localized broadband networks in public housing developments; developing online content and applications aimed at low-income, low-literacy audiences.

Portland State University

Sustainable Adoption \$3,318,031

Project serves: California, Louisiana, Minnesota, New York, Oregon, Texas

Partnering with adult literacy and basic education organizations with long histories in their respective states, Portland State University proposes to lead the Learner Web Partnership project to increase broadband use among low-income, minorities, and other vulnerable populations by teaching digital literacy along with English literacy, educating participants to become informed consumers, and providing access to career paths in the digital economy. Project partners will deploy the existing Learner Web software, which has been cited by the U.S. Department of Education’s Office of Vocational and Adult Education as a noteworthy adult education program, for more than 20,000 residents. Instructional materials will address topics including use of broadband for job searches, education and health information, and smart consumer practices. The project proposes a distinctive focus on the needs of adult learners using an approach that combines self-paced learning with live tutorial support.

Regents of the University of Minnesota

Public Computer Centers \$2,862,333

Project serves: Minnesota

The Broadband Access Project proposes to enhance broadband awareness and use for residents in four federally-designated poverty zones in Minneapolis and St. Paul. These enhancements plan to better serve vulnerable populations, including African-Americans and Hmong and Somali immigrants whose needs are not currently being met because of financial, educational and technological constraints. The project plans to establish one new public computer center and improve 10 existing computer centers, adding 93 new workstations and replacing 49 existing workstations. The project intends to provide broadband speeds of at least 16 Mbps to these locations. The Broadband Access Project expects to provide broadband training to vulnerable, low-income, minority and immigrant populations to promote education, health care, workforce preparation and community revitalization. Plans include providing training to residents, not-for-profit organizations and small businesses to help create jobs and develop the skills necessary to compete in today’s economy. The project expects to train 17,000 people over the life of the grant. In addition, the Minnesota Multicultural Media Consortium plans to conduct culturally-specific outreach and translate project materials into languages spoken locally.

University Corporation for Advanced Internet Development

Infrastructure \$62,540,162

Project serves: [Alabama](#), [Alaska](#), [Arizona](#), [Arkansas](#), [California](#), [Colorado](#), [Connecticut](#), [Delaware](#), [District of Columbia](#), [Florida](#), [Georgia](#), [Hawaii](#), [Idaho](#), [Illinois](#), [Indiana](#), [Iowa](#), [Kansas](#), [Kentucky](#), [Louisiana](#), [Maine](#), [Maryland](#), [Massachusetts](#), [Michigan](#), [Minnesota](#), [Mississippi](#), [Missouri](#), [Montana](#), [Nebraska](#), [Nevada](#), [New Hampshire](#), [New Jersey](#), [New Mexico](#), [New York](#), [North Carolina](#), [North Dakota](#), [Ohio](#), [Oklahoma](#), [Oregon](#), [Pennsylvania](#), [Rhode Island](#), [South Carolina](#), [South Dakota](#), [Tennessee](#), [Texas](#), [Utah](#), [Vermont](#), [Virginia](#), [Washington](#), [West Virginia](#), [Wisconsin](#), [Wyoming](#)

As part of a longstanding project to connect essential community anchor institutions across the country, and facilitate closer collaboration and long-term benefits for education, research, healthcare, public safety, and government services, the University Corporation for Advanced Internet Development (UCAID) proposes a comprehensive 50-state network benefitting approximately 121,000 community anchors. The project proposes a large-scale, public-private partnership to interconnect more than 30 existing research and education networks, creating a dedicated 100-200 Gbps nationwide fiber backbone with 3.2 terabits per second (TBps) total capacity that would enable advanced networking features such as IPv6 and video multicasting. The project plans to connect community anchors across all disciplines into virtual communities with shared goals and objectives, including colleges, universities, libraries, major veterans and other health care facilities, and public safety entities, with additional benefits to tribes, vulnerable populations, and government entities.

Zayo Bandwidth, LLC

Infrastructure \$13,382,593

Project serves: [Minnesota](#)

The Connect Anoka County Community Broadband Network, a partnership between Zayo Bandwidth and Anoka County, Minnesota, plans to make high-speed broadband services available to governments, businesses, community anchor institutions, and local Internet service providers in Anoka County and parts of nearby Isanti and Ramsey Counties. Anoka County is one of the poorest counties in the Twin Cities metro area, with significantly higher unemployment and foreclosure rates than most of Minnesota. Many areas of the county lack broadband speeds sufficient to maximize educational opportunities, government services, and public safety responsiveness. To address this need, the project plans to build a new 286-mile fiber network that will provide speeds between 100 Mbps and 10 Gbps.

Appendix C

Home Phone

Charter

www.charter.com 320-229-2635

Integra Telecom

www.integratelecom.com 320-257-4672

CenturyLink

www.CenturyLink.com 1-800-475-7526

Benton Cooperative Telephone

<http://www.bctelco.net/telephone.htm> 320-393-2115

TDS

www.tdsmetro.com 320-258-3333

Clearwire

<http://www.clearwire.ccm/shop/> 888-253-2794

AT&T

<http://www.att.com/shop/home-phone/> 1-888-333-6651

Telecommunications Services

InteleCONNECT, Inc

<http://www.inteleconnect.net/default.html> 320-257-7400

Works with businesses on their local and long distance plans to find the best companies to represent their needs.

-Revised in February 2012

-Prices and availability subject to change

Developed as part of the Blandin Foundation MIRC project through a Department of Commerce grant.



www.bentoncountyconnected.org

Benton County Internet, Phone, and Cable Directory



www.bentoncountyconnected.org



This publication aims to provide a directory of available wireless, Cable and Digital television, Internet, and Home Phone companies servicing Benton County along with each company's contact information. More detailed information may be attainable at each ISP's website or over the phone. This list may not be fully comprehensive and some services may not be available in all areas.



For a detailed listing of services available at your specific address you can access the Connect Minnesota website at <http://connectmn.org/>. On the home page click "Learn"; click "Interactive Map" and then click "Launch the Interactive Map". This will take you to a digital map of Minnesota. From here you can click on "find address" and then you will be able to enter in your home or business address which will bring up a list of internet, phone, and cable providers available in your area.

Mobile Phone

Verizon Wireless

<http://www.verizonwireless.com/> 800-922-0204

Duet

www.duetip.com 320-281-3500

AT&T

<http://www.att.com/shop/wireless/> 1-888-333-6651

Sprint

http://www.sprint.com/index_p.html 1-866-866-7509

T-Mobile

<http://www.t-mobile.com/> 1-800-866-2453

Cable and Digital

Charter

www.charter.com 320-229-2635

Benton Cooperative Telephone

<http://www.bctelco.net/television.htm> 320-393-2115

Direct TV

<http://www.directv.com/> 1-888-795-9488

Dish Network

<http://www.dishnetwork.com/> 1-800-823-4929

Midcontinent

www.midco.net.com 1-800-888-1300

Internet

Charter

www.charter.com 320-229-2635

1Mbps \$19.99 per month

12Mbps \$29.99 per month

18Mbps \$39.99 per month

25Mbps \$54.99 per month

60Mbps \$99.99 per month

*12 month introductory prices when bundled

Integra Telecom

www.integratelecom.com 320-257-4672

High speed internet to area businesses, Email & Web Hosting, Online Data Storage

CenturyLink

www.centurylink.com 1-800-475-7526

1.5Mbps \$14.95 per month

7Mbps \$19.95 per month

12Mbps \$24.95 per month

20Mbps \$34.95 per month

40Mbps \$44.95 per month

*12 month introductory prices when bundled

TDS

www.tdsmetro.com 320-258-3333

Cloudnet

<http://www.cloudnet.com/> 320-240-8243

256Kbps \$33.00 per month

1.5Mbps \$48.00 per month

5Mbps \$78.00 per month

Clearwire

www.clearwire.com 888-253-2794

2.0Mbps \$32.00 per month

Duet

www.duetip.com 320-281-3500

1.5Mbps \$25.00 per month

3.0Mbps \$35.00 per month

4.0Mbps \$45.00 per month

Benton Cooperative Telephone

<http://www.bctelco.net/internet.htm> 320-393-2115

DSL

768Kbps \$39.95 per month

1.5Mbps \$44.95 per month

3.0Mbps \$59.95 per month

Cable Internet

1.5Mbps \$34.95 per month

3.0Mbps 38.95 per month

5.0 Mbps 42.95 per month

CitEscape

http://www.citescape.com/cust_pricing.html 320-257-7020

1.5Mbps \$39.99 per month

2.5Mbps \$49.99 per month

Verizon

<http://www22.verizon.com/Residential/Internet/#>

1-800-837-4966

DSL

0.5-1 Mbps 14.99 per month

7-15 Mbps 29.99 per month

Fiber

15Mbps \$49.99 per month

25 Mbps \$69.99 per month

50Mbps \$139.99 per month

150Mbps \$194.99 per month

AT&T

<http://www.att.com/shop/internet/> 1-866-596-8455

3Mbps \$38 per month

6Mbps \$43 per month

12Mbps \$48 per month

18Mbps \$53 per month

24Mbps \$63 per month

HughesNet

<http://www.hughesnet.com/> 800-630-2713

1.0Mbps \$39.99 per month

1.5Mbps \$59.99 per month

2.0 Mbps 89.99 per month

Wild Blue

<http://www.wildblue.com/> 1-866-974-7174

0.5Mbps \$49.95 per month

1.0Mbps \$69.95 per month

1.5Mbps \$79.95 per month

Midcontinent

www.midco.net.com 1-800-888-1300

Appendix D

Internet cont.

Via Sat, Inc.
www.viasat.com
 7.5 GB per month \$49.99
 15 GB per month \$79.99
 25 GB per month \$129.99

Windstream
www.windstream.com
 Up to 3 Mbps per month 1-866-308-4973
 Up to 6 Mbps per month See web site or
 Up to 12 Mbps per month call for pricing

Home Phone

Arvig Communication Systems
www.arvig.com 888-992-7844

AT&T
www.att.com/shop/wireless 1-888-333-6651

CenturyLink
www.centurylink.com 888-680-4729

Frontier Communications of Minnesota
www.frontier.com 1-866-257-9076

Paul Bunyan Telephone
www.paulbunyan.net 800-922-0204

Charter
www.charter.com 320-229-2635

Integra Telecom
www.integratelecom.com 320-257-4672

TDS
www.tdsmetro.com 320-258-3333

Clearwire
www.clearwire.com/shop 888-253-2794

AT&T
www.att.com/shop/home-phone 1-888-333-6651

Windstream
www.windstream.com 1-866-308-4973

- Last updated July 2012
- Prices and availability subject to change

Itasca County Internet, Phone, and Cable Directory



This publication aims to provide a directory of available wireless, Cable and Digital television, Internet, and Home Phone companies servicing Itasca County along with each company's contact information. More detailed information may be attainable at each providers website or over the phone. This list may not be fully comprehensive and some services may not be available in all areas.



For a detailed listing of services available at your specific address, access the Connect Minnesota website at www.connectmn.org. On the home page click "Learn"; click "Interactive Map" and then click "Launch the Interactive Map". This will take you to a digital map of Minnesota. From there click "Locate" and then you will be able to enter in your home or business address which will bring up a list of internet providers available in your area.

Mobile Phone

Arvig Communication Systems www.arvig.com	1-888-992-7844
AT&T www.att.com/shop/wireless	1-888-333-6651
CenturyLink www.centurylink.com	888-680-4729
Sprint www.sprint.com/index_p.html	1-866-866-7509
Verizon Wireless www.verizonwireless.com	1-800-837-4966
T-Mobile www.t-mobile.com	1-800-866-2453

CenturyLink www.centurylink.com	888-680-4729
Up to 1.5 Mbps	Start at \$19.95 for 5 yrs
Up to 7 Mbps	Start at \$19.95 for 5 yrs
Up to 12 Mbps	Start at \$19.95 for 5 yrs
Up to 20 Mbps	Start at \$24.95 for 5 yrs
Up to 40 Mbps	Start at \$29.95 for 5 yrs

DISH Network Corporation www.dish.com/entertainment/internet-phone/	888-865-5620
See web site for specific package details	

Frontier Communications of Minnesota www.frontier.com	1-866-257-9076
Speeds up to 1 Mbps	\$34.99 per month
Speeds starting at 3 Mbps	\$49.99 per month

Cable and Digital

Arvig Communication Systems www.arvig.com	888-992-7844
Direct TV www.directv.com	1-888-795-9488
Dish Network www.dishnetwork.com	1-800-823-4929
Midcontinent www.midco.net	1-800-888-1300
Paul Bunyan Television www.paulbunyan.net	218-444-4638

Hughes Network Systems, LLC (Satellite Internet) www.hughesnet.com	1-866-293-8945
Up to 1 Mbps	\$39.99 per month
Up to 1.5 Mbps	\$79.99 per month
Up to 2 Mbps	\$109.99 per month

Mediacom www.mediacomcable.com	1-866-755-2225
Up to 3 Mbps	See web site or call for pricing
Up to 12 Mbps	
Up to 50 Mbps	

Paul Bunyan Net www.paulbunyan.net	218-444-4638
Up to 10 Mbps	\$44.95 per month
Up to 15 Mbps	\$54.95 per month
Up to 20 Mbps	\$64.95 per month
Up to 25 Mbps	\$75.95 per month
Activation Fee \$75 (waived with a 6 month service agreement)	

Internet

Arvig Communication Systems www.arvig.com	1-888-992-7844
Up to 5 Mbps	\$39.95 per month
Up to 7 Mbps	\$49.95 per month
Up to 10 Mbps	\$59.95 per month
Up to 20 Mbps	\$199.95 per month

AT & T Mobility LLC www.att.com	320-229-2635
Up to 3 Mbps	\$19.95 per month
Up to 6 Mbps	\$24.95 per month
Up to 12 Mbps	\$29.95 per month
Up to 18 Mbps	\$34.95 per month
Up to 24 Mbps	\$44.95 per month
*12 month introductory prices when bundled	

SCI Broadband www.scibroadband.com/internet	1- 800-222-9809
Dial up 53 Kbps	See web site or call for pricing
Up to 1.5 Mbps	
Up to 12 Mbps	

Verizon Wireless www.verizonwireless.com	1-800-837-4966
Mobile Broadband Device Plans	
Up to 2 GB per month	\$30.00 per month
Up to 5 GB per month	\$50.00 per month
Up to 10 GB per month	\$80.00 per month