



## Idaho Broadband Framework: Expanding Statewide Broadband Development & Use

October 11, 2012

### Executive Summary & Overview

Broadband is widely recognized as the infrastructure challenge of our time. Access to broadband and digital literacy skills have become essential to participate in society, to access information, and to conduct business. Through extensive research in Idaho over the past three years, communities, citizens and leadership spoke about four key areas that broadband can support: economic development, public safety, health care and education.

The purpose of the Idaho Broadband Framework is to provide context and point the way forward to expand broadband development and use throughout the State of Idaho. The framework provides data on Idaho's broadband-related strengths and needs and identifies policy considerations, initiatives, and actions that can expand state as well as local capacity to improve the availability, adoption and application of broadband.

Developed in concert with the State of Idaho Office of the CIO, the Idaho Rural Partnership, the LinkIDAHO Broadband Advisory Team and regional stakeholders, this statewide framework highlights 13 recommended initiatives:

1. Identify city and county permitting and cost barriers that deter or delay broadband investment.
2. Work with the Idaho Association of Counties and Idaho Association of Cities to develop sample ordinances and policies that encourage and speed up broadband development.
3. Work with the Public Utilities Commission to examine the benefits of revising state statutes.
4. Work with the Office of the CIO and the Public Utilities Commission to consider developing a state position on Universal Service Funding (USF), so that it can best advocate for its needs.
5. Expand small and mid-sized business access to and utilization of broadband to strengthen state economic competitiveness.
6. Enhance the capacity of local communities to take meaningful actions to improve broadband availability, adoption or application.
7. Create new incentives to expand broadband service deployment in areas where service is either unavailable or insufficient to meet local needs.

8. Advance efficient access to health care information and health care services throughout the state.
9. Increase digital literacy and access to broadband-enabled technologies.
10. Enhance public and private sector communication and resource sharing on broadband related projects.
11. Identify a coordinating entity to convene regular discussion with multi-sector/multi-agency stakeholders on state broadband-related projects.
12. Adopt and generate awareness about the Idaho Broadband Framework and develop an implementation plan for this Framework.
13. Monitor progress and track successes.

## Overview

The purpose of the Idaho Broadband Framework is to provide context and point the way forward for better broadband development and use throughout the State of Idaho. The framework provides data on Idaho's broadband-related strengths and needs and identifies policy considerations, initiatives, and actions that can expand state and local capacities to improve the availability, adoption and application of broadband. Developed in conjunction with the State of Idaho Office of the CIO and Idaho Rural Partnership (IRP), this statewide framework incorporates several key strategies to be advanced through public and private sector collaboration at the local, regional and state levels.

In December 2011, the IRP began the process to develop this framework by forming the LinkIDAHO Broadband Advisory Team (LBAT) with public sector and private sector representatives from across the state. Over six months, team members and committees provided input on the format of and content of the State Broadband Framework. A series of focus groups were held to gather input from a variety of key stakeholder groups regarding possible initiatives to advance broadband adoption, application and availability in Idaho. 51 people participated in the focus groups from key sectors including health care, economic development, public safety, government (state, city, county, and local), education (higher education and K-12), non-profits, providers and businesses. This Idaho Broadband Framework was submitted to LBAT for review and edits on June 19, 2012.

Through this work, the LBAT and regional stakeholders identified initiatives and actions to advance broadband in Idaho:

- Reduce barriers to broadband investment and expansion
- Facilitate diverse statewide partnerships and collaborations to advance broadband
- Promote awareness of shared opportunities among consumers, government leaders and providers
- Reduce barriers to broadband adoption
- Support local-based initiatives

This framework is organized in five sections:

1. State of Broadband: A description of Idaho's current state of Broadband. (Page 3)
2. Broadband Policies: An overview of local, state and national policies that impact or could impact broadband expansion. (Page 10)
3. Broadband Opportunities: Activities and initiatives that can expand broadband availability, adoption, and application. (Page 12)
4. Resources: An overview of financial and in-kind resources that can support broadband development and use in the state. (Page 14)
5. Implementation: How this framework could be accomplished and acted upon and accomplished in the state. (Page 16)

## State of Broadband

Measures of Idaho's broadband availability and adoption levels vary across different studies and data collection efforts. Below is a snapshot of different data sources to create the picture of today's state of broadband in Idaho.

According to a 2011 Pando Networks report<sup>1</sup>, Idaho ranks last in terms of broadband speed nationally. By tracking downloads by 4 million users across the country from January through June 2011, Pando Networks' study revealed that some states are averaging connectivity speeds as much as ten times faster than those in other states. The data indicates that the fastest state was Rhode Island at an average of 894 KBps, which was almost three times faster than Idaho, the slowest at 318KBps.

In 2011, the Idaho Technology Council<sup>2</sup> conducted a survey and received 426 responses-- 77% of respondents were from Ada or Canyon County and 62% of people had a bachelors degree or higher.

- 66% believe Idaho's Internet service is worse than areas of the country where they compete for business.
- >80% believe the availability and cost of high-speed broadband Internet is a determining factor in businesses locating to the area.
- 75% have high-speed Internet access at home AND work and more than 30% report their Internet service as bad or very bad.
- 98% said having a reliable, fast and affordable broadband Internet service was very important or important to economic development.
- 92% of respondents want higher-speed Internet and 85% currently using the Internet believe high-speeds would increase efficiency and productivity.
- 97% of respondents believe Idaho should aggressively pursue policies that facilitate/support the development of reasonably priced broadband.

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<sup>1</sup> -----<http://www.pandonetworks.com/Pando-Networks-Releases-Nationwide-ISP-And-Network-Study>

<sup>2</sup> -----<http://www.idahotechcouncil.org/>

## Availability

Broadband availability is a function of geographic coverage, available speed, technology employed, cost and the extent to which competition has developed in the marketplace. Table 1 below presents speed requirements relative to a sampling of Idaho’s priority needs.

The FCC’s threshold definition of broadband for the purposes of the LinkIDAHO and National broadband maps are 768 Kbps downstream and 200 Kbps upstream. In today’s marketplace this minimal level of speed is not a viable solution for most applications. The near-term target definition in the National Broadband Plan is higher at 4 Mbps down and 1Mbps up. The long-term goal for 2020 is that 100 million U.S. homes should have affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps.

**Table 1: Applications by Speed**

• Basic Internet...staying connected, basic email and simple web browsing, etc.	768 Kbps to 1.5 Mbps
• Typical Internet...remote monitoring (e.g., basic agriculture operations), basic telecommuting, complex web browsing, etc.	1.5 Mbps to 4 Mbps
• Enhanced Internet...remote medical diagnosis, basic medical record sharing, remote education, etc.	4 Mbps to 10 Mbps
• Premium Internet...complex telemedicine, education services, complex telecommuting, high quality telepresence	10 Mbps to 100 Mbps
• Advanced Internet...high definition telemedicine, multiple interactive education service, etc.	100 Mbps – 1 Gbps
• High end Internet...research applications, high end remote telemedicine applications, etc.	Greater than 1 Gbps

Table 2 below is based on 2012 data collected from Idaho’s broadband service providers.

**Table 2: Summary of Broadband Availability in Idaho**

Speed Tier in Terms of the Maximum Advertised Download Speed	Idaho’s Rank Among Fifty States, Five Territories and DC	Percent of Population Living in Census Blocks by Speed Tier
768 Kbps	46 <sup>th</sup>	98.8%
1.5 Mbps	45 <sup>th</sup>	97.2%
3.0 Mbps	46 <sup>th</sup>	91.7%
6.0 Mbps	42 <sup>nd</sup>	89.2%
10.0 Mbps	44 <sup>th</sup>	83.8%
25.0 Mbps	38 <sup>th</sup>	63.4%

The data in Table 2 and on the LinkIDAHO and National Broadband maps is based on “advertised” speeds by census block--when service is indicated in one corner of a census block the whole census block will be shown as covered. Lower rank numbers are more desirable. This mapping standard set by the National Telecommunications and Information Administration (NTIA) tends to overstate coverage and as such does not fully reflect the gaps that exist. (Note: Census blocks greater than 2 sq. mile in area are handled differently to help mitigate this effect.)

Looking to the immediate future where speeds up to 6 Mbps likely represent a low-end requirement, the obvious issue with this profile is that at least 11% of Idaho has limited broadband connectivity. However, Idaho's rank of 38<sup>th</sup> in the country for speeds in excess of 25 Mbps indicates some strong investment in high-speed broadband infrastructure. In Idaho, rural areas are less likely to have broadband available. Data shows that rural communities outside a normal commuting distance from Idaho's urban areas in the state are losing population. Broadband can help reverse the trend but only if it's made available at a price rural markets can afford.

Map 1 shows those territories not served by wireline broadband across the state (brown shaded areas). Idaho's mobile wireless coverage, shown in Map 2, is consistent (i.e., inverse relationship) with the "no coverage" map...and speeds tend to be on lower end. The predominant yellow shading in the map shown at right represents 768 Kbps to 3 Mbps coverage.

**Map 1: Gaps in Wireline Availability**



**Map 2: Wireless Availability**



Competition is important to a sustainable and affordable broadband market. To this end Idaho is behind the nation a bit. The percent of population in Idaho living in census blocks served by three or more *wireline* providers is 19.4% while the national average is 30.5%. Wireline includes copper, fiber, and cable.

LBAT members recommend using three lenses to look at broadband availability: infrastructure, technology and accessibility.

- 1) **Infrastructure:** Several key factors affect the availability of broadband infrastructure in the state. For example, there is less broadband infrastructure in high-cost areas, such as the mountainous areas of Idaho and areas of low population density.
- 2) **Technology:** LBAT committee members discussed the importance of having Ethernet broadband technology available, because other technologies such as SONET or TDM are cost prohibitive to businesses and other subscribers.

- 3) **Accessibility:** Whether access can be accomplished at a reasonable price is an important consideration in the accessibility picture. For example, in Latah County, according to the state broadband maps broadband is available, however Ethernet has yet to be deployed in several areas, leading to challenges in broadband speeds and affordable access for businesses.

Broadband availability in Idaho has been advanced through the Idaho Education Network (IEN)<sup>3</sup>, the Idaho Regional Optical Network (IRON)<sup>4</sup> and several recent grants. Idaho has been working to build the IEN to connect public schools to high-speed broadband and online educational resources. They have completed Phase One, bringing broadband to the high schools; and Phase Two will bring high-speed broadband to middle schools, elementary schools and libraries.

IRON has connected anchor institutions across Idaho and supported the route diversity necessary for critical functions to continue. IRON is a cooperative effort between universities located in the Northwest region of the United States, the State of Idaho, the Idaho Hospital Association, and the Idaho National Laboratory to establish a high-performance Regional Optical Network within the State of Idaho. IRON's goal is to enable research, education, healthcare, and other institutions to collaborate effectively with other counterparts in Idaho, as well as nationally and internationally.

Three recent grants to Idaho entities are helping to expand broadband availability:

- In 2010, First Step Internet received an American Recovery & Restoration Act – Broadband Technologies Opportunity Program grant to expand middle mile broadband infrastructure across North Central Idaho (Region 2).
- In 2010, the Nez Perce Tribe received an American Recovery & Restoration Act – Broadband Technologies Opportunity Program grant to expand middle and last mile service, and voice coverage across the Nez Perce Reservation, serving communities of Ahsahka/Orofino, Kamiah, Kooskia, Greer/Fraser, Peck, and Culatesac.
- In August 2010, Idaho Commission for Libraries received funding for the Online @ Your Library BTOP grant to expand broadband connectivity and computer access at 55 public libraries across the state.
- In May 2012, the J.A. and Kathryn Albertson Foundation awarded a five-year grant to IRON to expand broadband and access to distance learning resources in Southeast and South Central Idaho.

## Adoption

According to recent NTIA studies<sup>5</sup>, Idaho's statewide broadband use levels are estimated at 62% in rural areas and 78% in urban areas, putting it 15<sup>th</sup> in the nation. Nationwide and in

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<sup>3</sup> -----<http://www.iен.idaho.gov/>

<sup>4</sup> -----<http://www.ironforidaho.net/>

<sup>5</sup> -----Exploring the Digital Nation – Computer and Internet Usage at Home. National Telecommunications and Information Administration, November 2011.

Idaho, adoption levels are increasing year over year. Consider the trends in the Table 3 derived from NTIA CPS data sets<sup>6</sup>.

Year / Access Type	Anywhere	Internet in Home	Broadband in Home	Dial-Up in Home	No Internet Use
2010	69.9%	57.9%	45.6%	12%	30.1%
2011	81.4%	72.2%	67.4%	4.4%	18.6%
Trend	+11.8%	+14.3%	+21.8%	-7.6%	-11.5%

Based on LinkIDAHO consumer surveys, primary reasons for not adopting computer or broadband technology are not having a computer, lack of perceived value, and/or the process is too difficult and confusing.

Idaho has made great strides in broadband adoption in the last two years as a result of the Idaho Commission for Libraries project. The Idaho Commission for Libraries Online @ Your Library is a \$2.8 million grant project with funding from a 2010 BTOP grant and matching funds from the Bill & Melinda Gates Foundation. The grant expanded broadband connectivity and computer access at 55 public libraries across the state. Partnerships with Idaho Public Television, the Department of Labor, and Adult Basic Education expanded access to digital learning resources. All publicly funded libraries in Idaho now have public access computing resources. Idaho has few other public access computing sites other than libraries.

Data gathered through the regional planning process indicate that greater training and awareness building about broadband technologies and uses will drive higher broadband demand and value.

### Regional Broadband Investment Priorities

Multi-sector Regional Planning Teams (RPTs) were convened beginning in 2010 to assess broadband availability and gaps in service and discuss regional needs for and use of broadband. They each determined an initial priority for broadband investments and developed a regional broadband investment plan. The focuses of their plans and data collection activities are based on regional needs and are listed on the following pages.

<sup>6</sup> -----2010 data comes from <http://www.census.gov/compendia/statab/2010/tables/10s1119.xls>; 2011 data comes from <http://www.census.gov/compendia/statab/2011/tables/11s1155.xls>.

### Region 1: Benewah, Bonner, Boundary, Kootenai and Shoshone Counties

Region 1 Challenges	Focus of Plan	Data Collection
<ul style="list-style-type: none"> <li>Historically underserved due to few providers, high costs for broadband access, and a general lack of available bandwidth to meet the expanding needs of the region’s businesses, residents and institutions.</li> <li>Limited broadband east of Coeur d’Alene and in Shoshone County.</li> </ul>	<p>Conduct a case study of the Panhandle Area Council fiber infrastructure project with US Metronets in the cities of Sandpoint, Bonners Ferry, Kootenai, and Ponderay.</p>	<p>Document broadband access, barriers to broadband adoption, and unmet broadband needs among small manufacturers in Bonner, Boundary, and Shoshone Counties.</p>

### Region 2: Clearwater, Idaho, Latah, Lewis and Nez Perce Counties

Region 2 Challenges	Focus of Plan	Data Collection
<ul style="list-style-type: none"> <li>Need to leverage new broadband resources to support economic development and businesses.</li> <li>Lack of Ethernet deployment in Latah County</li> <li>A commonly cited gap in Idaho’s broadband infrastructure is the Grangeville to Riggins gap, which divides north and south Idaho.</li> </ul>	<p>Improve broadband access and adoption to support small manufacturer production and entrepreneurial businesses.</p>	<p>Document broadband access, barriers to broadband adoption, and unmet broadband needs among small manufacturers in North Central Idaho.</p>

### Region 3: Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley and Washington Counties

Region 3 Challenges	Focus of Plan	Data Collection
<ul style="list-style-type: none"> <li>Lower broadband availability in rural and low-income areas.</li> </ul>	<p>Assess broadband needs in Canyon County and improve access and use.</p>	<p>TBD</p>

### Region 4: Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka and Twin Falls Counties

Region 4 Challenges	Focus of Plan	Data Collection
<ul style="list-style-type: none"> <li>Improve redundancy (or fiber route diversity) for region.</li> <li>Increase public, organizational and private awareness of what can be done with high speed Internet.</li> </ul>	<p>Increase capacity for economic development with an emphasis on rural areas; bridge the connectivity gap between Twin Falls and Jerome.</p>	<p>Evaluate whether improved broadband access in Jerome area results in higher broadband adoption and application by businesses and thus, in economic development.</p>

## Region 5: Bannock, Bear Lake, Bingham, Caribou, Franklin, Oneida and Power Counties

Region 5 Challenges	Focus of Plan	Data Collection
<ul style="list-style-type: none"> <li>▪ Underserved rural areas, particularly in residential markets.</li> <li>▪ Fiber route diversity needed for critical service areas such as healthcare.</li> </ul>	Did not develop plan.	Evaluate whether improved broadband access in selected Region 5 libraries results in increased awareness and application among patrons, and in particular, awareness and applications related to employment, education, and e-government.

## Region 6: Bonneville, Butte, Clark, Custer, Fremont, Jefferson, Lemhi, Madison and Teton Counties

Region 6 Challenges	Focus of Plan	Data Collection
<ul style="list-style-type: none"> <li>▪ Geographic barriers make it difficult to connect with other areas of Idaho including their high-speed fiber infrastructure.</li> <li>▪ Limited market competition in areas such as Challis to Salmon. There is only one provider in this area.</li> <li>▪ The lack of a fiber path between southeast Idaho along I-15 to Dillon, Montana if resolved could yield interstate broadband connection as well as provide complete loops to support regional connectivity and reliability.</li> <li>▪ The City of Rexburg and BYU-Idaho want higher speed connectivity, which is currently not affordable through existing providers.</li> </ul>	Enhance economic development and access to distance education, especially in rural areas; focus initially on Salmon and Rexburg.	Document broadband access, barriers to broadband adoption, and unmet broadband needs among households and businesses in Lemhi County.

More information about the regional plans and teams can be found at <http://linkidaho.org/lid/default.aspx?page=43#Priorities>.

## Broadband Policies

Across Idaho in meetings with Regional Planning Teams, focus groups, and the LinkIDAHO Broadband Advisory Team, people agreed that policies could incentivize expansion and deployment of better broadband service. This section of the Idaho Broadband Framework contains an overview of local, state and national policies that impact or could impact broadband expansion.

The National Broadband Plan made some recommendations as to what federal, state and local governments could do to support broadband expansion:

1. “Government should take steps to improve utilization of existing infrastructure to ensure that network providers have easier access to poles, conduits, ducts and rights-of-way.”
2. “The federal government should foster further infrastructure deployment by facilitating the placement of communications infrastructure on federally managed property and enacting “dig once” legislation. (National Broadband Plan, p. 109)

LinkIDAHO stakeholders concurred that Idaho can advance its broadband infrastructure via implementing dig-once policies and identifying permitting barriers.

### Dig-once

Currently, the Idaho Transportation Department (ITD) has a practice of laying conduit when building roads. ITD could enhance their outreach and broadcasting about their project timelines, which would enable other partners to collaborate with them or access trenches when open. In addition, local governments have the opportunity to encourage conduit to be laid as part of infrastructure projects like sewer and water and can even pass an ordinance to ensure that it is done. For example, the City of Jerome has a subdivision ordinance or code that requires installation of fiber optic conduit in all open trenches when developing a subdivision (16.28.150 (P)). These two actions could encourage and facilitate deployment of fiber conduit as part of public works projects.

### Permitting

Focus group participants and LBAT members recommended *identifying city and county permitting and cost barriers that deter or delay broadband investment*. City permitting processes and pricing vary from place to place and can impact broadband services.

According to the 2010 National Broadband Plan,<sup>7</sup>

[T]he expense of obtaining permits and leasing pole attachments and rights-of-way can amount to 20% of the cost of fiber optic deployment. These costs can be reduced directly by cutting or lowering fees and by expediting

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<sup>7</sup> -----<http://www.broadband.gov/plan/>

processes for companies as they deploy broadband network infrastructure. (p.110-111). Many states have limited the rights-of-way charges that municipalities may impose, either by establishing uniform rates (Michigan) or by limiting fees to administrative costs (Missouri).<sup>8</sup> Other states, including South Carolina, Illinois and Florida, do not allow municipalities to collect rights-of-way fees directly; instead, the state compensates local governments for the use of their rights-of-way with proceeds from state-administered telecommunications taxes (p.113).

*LinkIDAHO leaders could work with the Idaho Association of Counties and Idaho Association of Cities to develop sample ordinances and policies that encourage and speed up broadband development. Through educating cities and counties on best practices in policies such as tower and trench permitting and land-use policies, Idaho broadband development can advance.*

## Tax Credit

According to LBAT members, previous policies have been implemented in Idaho that increased broadband subscription. The two spikes in broadband subscription were associated with the 2002 state broadband tax credit and the 2006 state broadband rural development grant:

- With the 2002 Idaho 3% Broadband Telecom Tax Credit, businesses were allowed a 3% investment tax credit of up to \$750,000 in any one year on Idaho state income tax for qualified broadband equipment and infrastructure used primarily to provide services to public subscribers in Idaho. The credit was transferrable and could be carried forward up to 14 years.
- The Idaho Rural Broadband Investment Program (IRBIP) was created by the Idaho Legislature in 2006. IRBIP was a \$5 million matching fund to support rural broadband investment plans. In April 2007, the state awarded funds to four broadband providers. The Idaho Department of Commerce and Labor was designated by the legislation to disperse the funds.

The feasibility of reinstating the broadband tax credit was discussed in focus groups, and several concerns were raised. First, tax credits are currently unpopular with Idaho legislators, making it less likely that a broadband tax credit would succeed. Second, there were concerns that tax credits need to be equally available to all providers, and that they need to be tied to some measureable requirements such as job creation or retention. Suggestions for the tax credit included:

- Only provide state broadband tax credit to developers seeking to build/deploy first service to unserved territories. Set baseline for minimum bandwidth.

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<sup>8</sup> -----In 2003, the NTIA compiled a comprehensive survey of state rights-of-way approaches that may be found at NTIA, Rights-of-Way Laws by State, <http://www.ntia.doc.gov/ntiahome/staterow/rowtableexcel.htm> (last visited Feb. 18, 2010). In 2002, the National Association of Regulatory Utility Commissions undertook a similar project and issued a comprehensive report. See NARUC, Promoting Broadband Access Through Public Rights-of-Way and Public Lands (July 31, 2002).

- Offer an enhanced broadband tax credit to spark deployment in targeted (underserved) areas. Use mapping to help identify targets.

*LinkIDAHO leaders could work with the Public Utility Commission to examine the benefits of revising the state statutes. According to the Public Utility Commission, the state tax credit regulations or state statutes need to be revised and perhaps tied to first service or underserved. The term “underserved” needs to be defined. The current definition of broadband is too limiting. Idaho should adopt at least the federal broadband standards of 768 Kbps downstream and 200 Kbps upstream, which could reduce total payout and focus benefits to highest communities of need. One approach could be to use the data from a community needs assessments, data and maps and then calibrate the tax credit based on the objectives of improving services in the target areas. Target areas such as first-service areas could get a higher percentage of a tax credit.*

Other ideas presented but not explored include:

- Local option tax.
- Incentives for adoption of broadband (i.e., healthcare)
- Addressing permitting and easement issues with the Department of Lands

Last, federal policy will be a driver for investment in high cost areas of Idaho. The FCC is revising the Universal Service Fund provisions right now, which will greatly impact reimbursement rates for providers. The USF will be transformed to the Connect America Fund (CAF). It will be important to monitor and respond to these changes as they are released. *Idaho should consider developing a state position on Universal Service Funding, so that it can best advocate for its needs.*

### Summary of Policy Recommendations:

- Identify city and county permitting and cost barriers that deter or delay broadband investment.
- Work with the Idaho Association of Counties and Idaho Association of Cities to develop sample ordinances and policies that encourage and speed up broadband development.
- Work with the Public Utility Commission to examine the benefits of revising the state statutes.
- Idaho should consider developing a state position on Universal Service Funding, so that it can best advocate for its needs.

## Broadband Opportunities

Seven initiatives were identified to advance broadband application, adoption and availability via reviewing research data and through input from regional and statewide stakeholders. These seven initiatives were tested in five multi-sector focus groups. Through this work six initiatives were selected that meet the standard of *actionable ideas* that share

a broad *consensus* within the *community* of stakeholders. The initiatives and information about potential activities that could support implementation are listed below.

- 1. *Expand small and mid-sized business access to and utilization of broadband to strengthen state economic competitiveness.***
  - a. Assess both current and anticipated future broadband connectivity needs for Idaho's small and mid-sized businesses.
  - b. Offer training to demonstrate to small and mid-sized businesses how they can leverage broadband. Expand businesses' awareness of broadband services available to them.
- 2. *Enhance the capacity of local communities to take meaningful actions to improve broadband availability, adoption or application.***
  - a. Utilize state and national funding programs (e.g. Community Development Block Grants, Gem Community grants, Rural Business Enterprise Grants, Rural Business Opportunity Grants) to support community broadband projects.
  - b. Identify funding to support and offer training or technical assistance.
  - c. Promote best practice information sharing across Idaho communities (i.e., permitting, dig once policies).
- 3. *Create new incentives to expand broadband service deployment in areas where service is either unavailable or insufficient to meet local needs.***
  - a. Targeted tax incentives (see Broadband Policies section on page 10 for details).
  - b. Encourage collaboration and coordination of infrastructure build-out, looking at best practices such as open trench policies.
  - c. Address regulatory barriers around broadband infrastructure deployment. Facilitate solutions to state and local right-of-way and permitting barriers.
  - d. Maximize Idaho's leveraging of available federal programs. (See Resources section on page 14.)
- 4. *Advance efficient access to health care information and health care services throughout the state.***
  - a. Assess and address any connectivity gaps required to meet Idaho Health Data Exchange objectives.
  - b. Expand telehealth and health monitoring use and innovations, including from home.
  - c. Establish partnerships between health care entities and public access computing sites (i.e., libraries, senior centers, community centers) to provide training or resources to support access to health information and health care.
- 5. *Increase digital literacy and access to technology.*** Digital literacy is the ability to locate, organize, understand, evaluate, and analyze information using digital technology<sup>9</sup>.
  - a. Assess and address any gaps in affordable, adequate connectivity to meet needs for access to education resources, formal and informal.

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<sup>9</sup> -----Wikipedia, [http://en.wikipedia.org/wiki/Digital\\_literacy](http://en.wikipedia.org/wiki/Digital_literacy)

- b. Promote funding and partnerships for delivery of digital literacy training statewide.
  - c. Advance public and private partnerships to enhance career preparation, workforce training and access to education.
- 6. Enhance public and private sector communication and resource sharing on broadband related projects.**
- a. Develop or identify a statewide working group that provides a mechanism for multi-sector communication and where appropriate resource sharing on projects related to infrastructure and technology.
  - b. Develop a map that shows in-state broadband related activities and infrastructure and a mechanism to keep updated.
  - c. Develop incentives for sharing of fiber resources (i.e., reward joint builds, joint use, or sharing of infrastructure).
    - i. Identify existing grant opportunities that could award extra points for cooperation/collaboration on broadband-inclusive projects.

## Broadband Resources

This section of the framework provides information on types of resources, financial, in-kind, and other, which could support broadband development and use in the state.

- **US UCAN project**—The United States Unified Community Anchor Network is a national project dedicated to connecting community anchor institutions, including public libraries, schools, community colleges, research parks, public safety and health care institutions with advanced broadband capabilities. Through IRON, Idaho is a pilot member of this project that will bring funds to improve community anchor institution access for health, education and public safety. <http://www.usucan.org/>
- **ICF International**—ICF International has a contract to provide technical assistance for the LinkIDAHO project. They will develop content and offer training on topics such as broadband technologies and funding sources.
- **Connect2Compete**—A new public-private partnership with the FCC will support broadband adoption. It will offer, to those who qualify, the rate of \$9.95 a month for Internet access at 1 Mbps and \$150 for a refurbished laptop running the Windows 7 operating system, along with applications that include digital literacy training. <http://www.connect2compete.org/>
- **Gem Grants**—The Idaho Gem Grant Program provides assistance to rural communities for the planning and implementation of economic development projects. <http://commerce.idaho.gov/communities/community-assistance/idaho-gem-grants/>
- **CDBG**—Community Development Block Grants could be used as a resource to encourage broadband infrastructure development and asset sharing. This federal

grant program provides communities with resources to address a wide range of unique community development needs.

[http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/comm\\_planning/communitydevelopment/programs](http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs)

- **Community Connect Grant Program**—A program of USDA Rural Development, they offer funding to improve rural broadband access.  
[http://www.rurdev.usda.gov/utp\\_commconnect.html](http://www.rurdev.usda.gov/utp_commconnect.html)
- **E-rate**—The federal E-rate program provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access.
- **USF and CAF**—Federal policy will be a driver for investment in high cost areas of Idaho. The FCC is revising the Universal Service Fund provisions right now. These changes will impact reimbursement rates for providers. The USF will be transformed to the Connect America Fund (CAF).
- **NSF EPSCoR grants**—The National Science Foundation has some grants that can support broadband related costs as part of grant activities, such as the Experimental Program to Stimulate Competitive Research.  
[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5672](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5672)
- **National Public Safety Broadband Network**—Federal legislation has been passed to allocate to public safety both the spectrum and funding needed to build the network. Guidance on requirements and funding opportunities will be available later this year. Additional information can be found at  
<http://www.npstc.org/broadbandDirectory.jsp>.
- **IGEM**—IGEM is a strategy to grow Idaho's technology sector, will be distributing \$950,000 in innovation grants. Potentially this source could be partially leveraged to support broadband for industry needs. <http://www.idahotechcouncil.org/igem/itc-igem>
- **Broadband Adoption Lifeline Pilot Program**—The FCC has launched a competition to discover the best ways to increase broadband adoption rates among low-income Americans. Applicants must be telecommunications carriers eligible to participate in Lifeline, and they are encouraged to partner with existing broadband adoption programs as well as schools, libraries, state and local governments, non-profits and others. The application deadline is July 2, 2012. Read more about the competition and the application procedures in the [FCC Public Notice](#).
- **CenturyLink Internet Basics**—Has resources for digital literacy training and affordable computers  
<http://www.centurylink.com/home/internetbasics/?rid=internetbasics>.

### LinkIDAHO Web Site, Dashboard and Maps

The LinkIDAHO dashboard at [www.idahodashboard.org](http://www.idahodashboard.org) contains data on regional demographics, Internet usage and availability, broadband demand and subscription. The dashboard links to a database system that contains the names of participants and stakeholders in the Idaho broadband planning work. This resource can be used for outreach, training, and engagement efforts.

The dashboard also contains a set of tools and resources to support broadband awareness and information. These include the following modules targeted to the Regional Planning Team audience:

- Broadband 201 – Provides basic information about broadband to help people understand benefits and uses, factors that determine availability, and ways to support adoption and uptake.
- Broadband Policy – Summarizes some key policy issues such as USF, usage-based pricing, spectrum allocation, net neutrality, pole attachments, right of way, and more.
- Connecting Businesses to Broadband– Shares information about benefits and opportunities for businesses to leverage broadband.
- Health Information Technology - Provides research tools and information resources to facilitate community-based initiatives that lead to expanded broadband access and adoption for healthcare.
- Innovative Practices – Highlights best practices nationally and within Idaho that expand broadband access and use.

The LinkIDAHO web site at [www.linkidaho.org](http://www.linkidaho.org) contains information about the project as well as the broadband availability maps created by provider data.

## Implementation

With this document, Idaho now has a guiding resource to further advance broadband in the state. The process of developing this framework brought together diverse sectors and has yielded many productive conversations about collaboration opportunities. As Idaho moves forward, several actions are recommended to generate awareness about the strategic actions, implement the initiatives and activities and coordinate efforts. As the broadband landscape in Idaho changes, progress is made, and as technology changes, this document will need to be updated.

### Implementation Recommendations:

- *Identify a coordinating entity for a multi-sector/multi-agency regular discussion on state broadband related projects.* The Department of Administration, LBAT, IRP and Information Technology Resource Management Council (ITRMC) have been suggested as possibilities to coordinate. At these meetings, information could be shared about initiatives, activities, challenges and opportunities to advance state broadband resources.
- *Adopt and generate awareness about the LinkIDAHO Broadband Framework and develop an implementation plan for this Framework.*

- *Monitor progress and track successes.* The University of Idaho Office of Community Partnerships has been hired to monitor and evaluate project implementation and outcomes. This data will be useful for tracking progress and identifying changes for the future.

The LinkIDAHO Broadband Advisory Team can support this framework implementation by:

- Working on an implementation plan for the Idaho Broadband Framework, complete with timeline and accountabilities,
- Collaborating and identifying partner organizations to implement the framework initiatives and activities,
- Communicating information about this framework and broadband efforts occurring statewide and regionally,
- Interacting with policy makers to inform them about broadband needs and benefits in Idaho, and
- Developing and recommending strategic partnerships and funding opportunities to improve broadband availability and use in Idaho.

On October 16, 2012, LinkIDAHO will host a Broadband Summit in Idaho Falls at the CAES Center. This broadband framework will be shared with stakeholders at the event to identify how they can engage and support local, regional, and statewide implementation and generate awareness about broadband needs and opportunities. This Broadband Summit will be an annual event and a key opportunity to leverage expertise and assets within the state.

Through this work, Idaho can build a better broadband future that benefits its citizens and advances the healthcare, education, public safety, and economic development opportunities within the state.

## About LinkIDAHO

The American Recovery and Reinvestment Act (ARRA) of 2009 made funding possible for broadband projects, including mapping and planning, infrastructure, public computer centers and sustainable adoption programs. States' broadband mapping and planning projects are made possible through the National Telecommunications and Information Administration's (NTIA) State Broadband Initiative (SBI) grant program.

In November 2009, Idaho received an approximate \$1.8 million grant to fund the State's SBI project years 1-2. An additional \$2.6 million grant was awarded in September 2010 to fund project years 3-5. This project will serve as a catalyst for increased access to and use of broadband to better serve our citizens. With ubiquitous broadband, we can realize improved economic development, access to education and health care, enhanced public safety, improved government efficiencies, increased tourism, greater access to telework opportunities and more.

The project is identifying key factors that will drive the adoption and sustainable use for broadband in Idaho. This grant supports a comprehensive mapping and planning project and includes:

- An assessment of the current availability, adoption and use of broadband communications infrastructure throughout the state.
- The development of specific strategies to fill current gaps in broadband access.
- The development of regional investment plans to expand the adoption and access to broadband.

Project staff has gathered a substantial amount of mapping and planning data to support this work that can be found on the LinkIDAHO web site at [www.linkidaho.org](http://www.linkidaho.org). For additional information about LinkIDAHO, contact State Broadband Coordinator Mike Field at [mike.field@irp.idaho.gov](mailto:mike.field@irp.idaho.gov) or 208-332-8699.