Idaho Broadband Strategic Plan

2022 - 2027

Table of Contents

01 A Message from Idaho Rep. John Vander Woude & Sen. Carl Crabtree

Dear Idahoans,

We are honored to lead Idaho's Broadband Advisory Board. This board was created by the Legislature through House Bill 127. Our board consists of three members of the Idaho House of Representatives, three from the Idaho Senate, and three appointed by the Governor. Together, our board is proud to deliver this statewide strategic plan to expand broadband in Idaho.

We recognize that access to affordable, accessible, and reliable broadband is one of the most critical infrastructure challenges of our time. Many of our Idaho communities lack adequate internet service or they simply don't have access at all which creates a "digital divide" between rural and urban Idaho communities. Inadequate access to high-speed internet disadvantages Idahoans who choose to live in rural parts of our state. This is an issue that transcends political beliefs- all Idahoans want and need connectivity.

Expansion of broadband to rural Idaho is critical for several reasons including economic growth, educational opportunities, business growth and increased access to telemedicine, improved public safety and services. **It is our commitment to close this digital divide in our state.**

We are fortunate to have many prospering industries which form a strong statewide employment base. A continued effort to expand access to reliable and redundant broadband infrastructure will create more employment options for Idahoans. We want our citizens to have both the opportunity and access to launch online businesses, expand their customer reach, or even work remotely for the organization anywhere in the world. By investing in the key pillars outlined in this strategic plan, we can achieve digital equity for all Idahoans.

02 Executive Summary

What is broadband and why is it important in Idaho?

Broadband has revolutionized the way services are provided and the way business is conducted. By improving communications and the flow of information, broadband enhances efficiency. This allows for significant advances in Idaho's ability to compete in the global economy. Idaho is one of the fastest growing states in the United States. People and companies are moving to Idaho not only for the lifestyle it provides but also because it's a great place to work and operate businesses. We need to level the playing field between urban and rural areas of the State, and one of the biggest imbalances is broadband access.

What is the current state of broadband data?

According to the Federal Communications Commission (FCC), the State of Idaho is home to 67 terrestrial broadband providers, however, connectivity is uneven for the residents of Idaho. Determining the number of unserved households in Idaho varies widely depending on the source cited. The FCC estimates that nearly 18,000 households lack access to fixed terrestrial broadband service at 25/3Mbps. Conversely, BroadbandNow and the US Census estimate the number of unserved households is closer to 100,000. Connecting Idahoans who are underserved, or lack access to 100/20Mbps, to high-speed broadband, is an even larger task, estimated by the FCC to be 150,000 households.

What is Idaho's long-term goal for broadband?

By 2027, Idaho will strive to serve 100% of Idaho's businesses and homes with access to high-speed broadband that provides minimum download speeds of at least 100 megabits per second and minimum upload speeds of at least 20 megabits per second. The value of investing in this level of connection is about the future of Idaho. Ultimately, the goal is to prepare citizens, businesses, and all Idaho communities to be able to compete for jobs in the next twenty to thirty years. Idaho will continue to grow economically, retain our businesses, create jobs, and attract entrepreneurs.

03 Key Terms & Abbreviations

Broadband: High-speed reliable Internet delivered via multiple technologies including fiber, fixed wireless, digital subscriber line (DSL), Hybrid Fiber Coaxial, cable modem, or satellite.

Broadband Infrastructure: Networks of deployed telecommunications equipment, conduit, and technologies necessary to provide broadband and other advanced telecommunications services to wholesalers or end users, including but not limited to private homes, businesses, commercial establishments, schools, or public institutions.

Unserved: U.S. Treasury, NTIA, and USDA define unserved at 25/3Mbps and will use this benchmark for future grant funding. FCC currently defines an area that lacks access to broadband infrastructure speeds of 10 Mbps download and 1 Mbps upload.

Underserved: U.S. Treasury, NTIA, and USDA define underserved as 100 Mbps download and 20 Mbps upload and benchmark for future grant funding. FCC currently defines an area that lacks access to broadband infrastructure speeds of 25 Mbps download and 3 Mbps upload.

Last Mile: Infrastructure that serves as the final leg connecting the broadband service provider's network to the end-use customer's on-premises telecommunications equipment.

Middle Mile: Infrastructure that links a broadband service provider's core network infrastructure to last-mile infrastructure.

Internet Service Provider: A company that provides individuals, businesses, anchor institutions, etc. with a connection to the internet. ISPs can include telephone and cable companies, wireless ISPs, electric cooperatives, municipal utilities, and mobile wireless providers. They use different technologies, including fiber, cable, DSL, and fixed wireless, to deliver internet service to their customers.

Internet Backbone: The primary data routes on the internet, including those that transport internet traffic between countries. It consists of high-capacity fiber-optic lines that carry large amounts of data. Local or regional networks can connect to the backbone for long-distance data transmission.

03 Key Terms & Abbreviations

Take Rate: The percentage of customers within an ISP's service area who subscribe to, or "take" the service.

Fixed Terrestrial Service: Broadband services provided by terrestrial-based non-mobile services such as Cable, DSL, Fiber, and Fixed Wireless from fixed points such as a central office or telecommunications equipment on a tower to a home or business and connected to a device within the property.

Indefeasible Right of Use: An agreement between a provider and a public sector partner for shared use of fiber.

Community Anchor Institutions: Schools, libraries, medical, and health care providers, public safety entities, institutes of higher education, local government facilities, and other community centers.

Open Access Network: Physical broadband network infrastructure that provides dark fiber access to municipalities, community institutions, rural cooperatives, and nonprofit and communications companies utilizing a cost recovery-based model of operations and maintenance.

Municipal Network: Broadband network owned fully or partially by local governments.

Speed: The rate at which a device can send or receive data. Speed is defined for both download (the rate at which data are sent from the internet to a device) and upload (the rate at which data are sent from a device to the internet), conveyed in megabits per second.

Public/Private Partnership: A group of public and private entities, i.e., government, business, and non-profit, that form a consortium to provide affordable, sustainable, and reliable broadband infrastructure and service.

03 Key Terms & Abbreviations

Lifeline: FCC program that provides low-income households a discount on internet service.

Affordable Connectivity Program (ACP): FCC program that provides eligible households with subsidized broadband service and connected devices. Capital Projects Fund and BEAD Program require subgrantees to participate in the program**.**

Federal Communications Commission (FCC): Regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states, the District of Columbia, and U.S. territories. The Commission is an independent U.S. government agency overseen by Congress and is the primary authority for communications law, regulation, and technological innovation in the U.S.

National Telecommunications and Information Association (NTIA): The Executive Branch agency that is principally responsible for advising the President on telecommunications and information policy issues. NTIA will oversee the BEAD program which is the broadband section of the Infrastructure Bill.

Rural Digital Opportunity Fund (RDOF): RDOF is an FCC reverse auction utilizing Universal Service Funds to bring broadband infrastructure to unserved census blocks in the United States. Started in 2019, awards began in late 2020 and the FCC is still in process of finalizing grants.

USDA Reconnect: Program from USDA offering loans, grants, and loan combinations to facilitate broadband deployment in rural areas that do not have sufficient broadband access.

04 Vision, Mission, & Guiding Principles

Vision

Idahoans have access to affordable and reliable broadband infrastructure by 2027.

Mission

We will deliver a roadmap to close the digital divide in Idaho. We commit to providing equal access to economic development, public safety, telehealth, and education opportunities with investments in broadband infrastructure. We will prioritize funding for our most needed areas identified as households, businesses, and communities in unserved and underserved areas.

Guiding Principles

Access: Barriers to access for all Idahoans are removed ensuring that underserved and unserved locations receive broadband services.

Affordable: Committed to affordable broadband service for Idahoans.

Alignment: Stakeholders are committed to achieving the vision in this plan. Key decisions support the outlined long-term goals.

Competition: Support middle mile and last mile infrastructure investments that support and build off existing infrastructure and provider networks, increase competition, efficiency, and redundancy to communities.

Data-Driven: Plan is delivered with close attention to metrics. Data is continuously gathered and acted upon.

Responsive: Strategic agility is deployed in the execution of this plan and regular adaptation to the rapidly changing environment occurs.

05 Roles & Responsibilities

Roles

Idaho Broadband Advisory Board: "...three (3) members of the house of representatives appointed by the speaker of the house of representatives, three (3) members of the senate appointed by the president pro tempore of the senate, and three (3) members of the public appointed by the governor." (Idaho Statute 67-4761, 2021). The Board is responsible for creating a statewide broadband plan that determines the manner of structure, prioritization, and disbursement of the funds under the Broadband Fund.

Idaho Office of Broadband: Under the Idaho Department of Commerce, the team administers grants that follow the Idaho Broadband Advisory Board's Statewide Broadband Plan and any additional requirements. Supports and coordinates efforts of the Advisory Board and Idaho Broadband Fund.

Partners: All Internet Service Providers, local and state governments, schools and libraries, tribal entities, businesses, organizations, and entities that financially support broadband infrastructure and technology deployment in Idaho.

Community: Consumers and users of the internet in Idaho, including citizens, businesses, and organizations, that have a vested interest in more reliable and better broadband infrastructure.

Responsibilities

Prioritize & Direct State Funding

Prioritize & Direct Federal Funding

Administer & Distribute State & Federal Funding

Solicit the Participation and Assistance of State Agencies

Ensure Compliance with State & Federal Guidelines

Strategic Broadband Decisions

Tactical Broadband Decisions

Technology & Infrastructure Objective

Business Development Objective

Educational Access Objective

Operations& Data Objective

05 Roles & Responsibilities

Accountable (A) Outcome-oriented designation that applies to a single person/board who reports on the work.

Responsible (R) Task-oriented designation that applies to the person (or people) completing the work.

Consulted (C) Provide input based on either how it will impact future work or their domain of expertise on the deliverable itself, and with whom there is often two-way communication.

Informed (I) Kept up to date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.

Task	Board	Commerce	Partners	Community
Direct State Funding	A/R	C	C/I	I
Direct Federal Funding	A/R	C	C/I	I
Administer & Distribute Funding	A	R	C/I	I
Solicit Participation from State Agencies	A	R	I	I
Compliance with State & Federal Guidelines	C	A/R	I/R	I
Strategic Decisions	A/R	C	C/I	I
Tactical Decisions	A	R	R/C	C/I
Technology & Infrastructure Deployment Standards	A/I	R	A/R	C/I
Business Development	I	R	C	C/I
Educational Access	I	R	C	C/I
Operations, Data	A	R	C	C/I

06 Strategic Objectives

Infrastructure & Technology

The Idaho Broadband Advisory Board will prioritize middle mile and last mile infrastructure investments to connect residents, businesses, and community anchor institutions that are unserved and underserved in the State of Idaho.

Economic Development

The Idaho Broadband Advisory Board will prioritize broadband investments that strengthen the economic ecosystem for businesses in our state and ensure access to broadband infrastructure that is reliable and affordable.

Educational Access

The Idaho Broadband Advisory Board will prioritize that both students and educators have access to affordable and reliable broadband services in their homes as well as across Idaho in schools, libraries, and communities in unserved and underserved locations.

Operations & Data

The Idaho Office of Broadband will manage the deployment of funding for capital projects, grant programs, and other established projects, to support data-driven broadband infrastructure investments in Idaho.

Public Safety & Communications

The Idaho Broadband Advisory Board will prioritize broadband investments that strengthen access to reliable, resilient, scalable, and redundant broadband services to the Emergency Communications Centers (ECCs) locations in the State of Idaho.

06 Strategic Objectives

Infrastructure & Technology

The Idaho Broadband Advisory Board will prioritize middle mile and last mile infrastructure investments to connect residents, businesses, and community anchor institutions that are unserved and underserved in the State of Idaho.

- Implement grant programs that focus on unserved and underserved communities

- Approve grant programs focused on delivery to locations or last mile, middle mile, community anchor institutions, public safety, telehealth, or other priorities deemed lacking sufficient broadband infrastructure by the Idaho Broadband Advisory Board

- Engage in partnerships with internet service providers, local governments, state agencies, and experts.

- Promote Dig Once principles and Right of Way policies in building out broadband infrastructure.

06 Strategic Objectives

Economic Development

The Idaho Broadband Advisory Board will prioritize broadband investments that strengthen the economic ecosystem for businesses in our state and ensure access to broadband infrastructure that is both reliable and affordable.

- Provide broadband infrastructure opportunities to previously unserved areas.

- Increase the potential economic diversification through enhanced connectivity.

- Identify remote work and learning, telehealth, and public safety opportunities in Idaho.

- Expand the utilization of broadband to low-income users through the use of the Affordable Connectivity Program/Lifeline subsidy.

- Partner with appropriate state agencies to avoid duplication of service and support the varying needs of rural community infrastructure.

Educational Access

The Idaho Broadband Advisory Board will ensure that students and educators have access to affordable and reliable broadband services across Idaho in their homes as well as across schools, libraries, and unserved and underserved locations.

• Engage with the Idaho State Board of Education, independent school districts, libraries, and institutions of higher learning to identify broadband infrastructure gaps.

• Prioritize broadband infrastructure investments to project areas where students, their families, and teachers reside in unserved and underserved locations. This is in partnership with state agencies, business and industry, and education non-profit organizations to improve digital access, literacy, and usage.

06 Strategic Objectives

Operations & Data

The Idaho Office of Broadband will manage the deployment of funding for capital projects, grant programs, and other established projects, to support data-driven broadband infrastructure investments in Idaho.

- Collaborate with other state agencies on broadband infrastructure projects.

- Propose and implement standard operating procedures for grant programs, capital projects, and community engagement.

- Facilitate collaboration between state agencies, stakeholder groups, and overlapping service providers.

- The Idaho Department of Commerce will provide the Idaho Broadband Advisory Board with relevant data and information as necessary.

06 Strategic Objectives

Public Safety & Communications

The Idaho Broadband Advisory Board will prioritize broadband investments that provide access to reliable, resilient, scalable, and redundant broadband service to the Emergency Communications Centers (ECCs) locations in the State of Idaho.

- Encourage the identification of ECC locations in Idaho that are unserved and underserved with current standards (100/20 Mbps) of broadband service and prioritize connecting those facilities in grant applications.

- Encourage the identification of broadband service single points of failure to ECC locations.

- Encourage the development of map layers that identify ECC locations that are unserved and underserved and share them with other state agencies so the state can incorporate those into grant applications.

- Identify and include primary and redundant connectivity to ECCs via middle and last-mile projects.

07 Recommendations

1
Create a Technical Plan

Feedback from the Idaho Broadband Advisory Board and the Office of Broadband indicates the need to create a separate technical plan that will assist with federal grant awards and identify the specific processes, tactics, and details of each strategic objective. This plan will determine how Idaho will strive to achieve the goal of connecting 100% of Idaho locations to high-speed broadband and how to leverage all sources of funding.

2
Streamline Decision Making

To ensure that the Advisory Board is consistent in prioritizing and awarding grants and projects, a decision-making matrix should be used.

3
Broadband Funding

Considering the influx of federal dollars into the State Broadband Fund, a conversation around allocation for each grant fund should be had. In addition, an ongoing source of funding should be identified.

4
Clarify Reporting Structure

There needs to be clarity around reporting structure, and legislative and executive functions of this plan. Write an annual operating plan.

Appendix B: Acknowledgements

Idaho Broadband Advisory Board

Chairman Rep. John Vander Woude, Idaho Legislator

Vice Chair Sen. Carl Crabtree, Idaho Legislator

Sen. David Nelson, Idaho Legislator

Sen. Doug Ricks, Idaho Legislator

Rep. Megan Blanksma, Idaho Legislator

Rep. Barbara Ehardt, Idaho Legislator

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Margie Watson, JC Watson & Company

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