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COLORADO

**Governor's Office of
Information Technology**

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Broadband Advisory Board Annual Report

Governor's Office of Information Technology
601 E. 18th Ave., Suite 130 | Denver, CO 80203

Letter from Bob Fifer, Chair

On October 30, 2020, Governor Polis issued an [Executive Order](#) forming the Broadband Advisory Board with voting members from the Colorado Broadband Office, Office of Economic Development & International Trade, Department of Local Affairs, Department of Regulatory Agencies and Department of Transportation, with additional collaboration from other groups directly engaged in the state's broadband expansion.

We appreciate Governor Polis' vision and understanding on how broadband impacts every Coloradan business, resident and visitor. His creation of the Board brings additional attention and collaboration among state agencies, communities, businesses and industry. The availability or absence of broadband impacts local economies, community resiliency, education and healthcare. Broadband should not only be available, but needs to be equitable and accessible across our state. The Board will be a dedicated advocate, highlighting the need for broadband within every community, school, healthcare facility and business.

In the next year, I look forward to the Board building its awareness of the impacts, struggles, strategies and successes regarding broadband in our state. We will continue to improve our data so that we can make informed decisions and provide compelling guidance as trusted advisors to leadership and stakeholders.

I want to thank all of the Board members for their dedication and support, and would like to recognize Sarah Smith (OIT) and Andy Frohardt (AG) for their unwavering support. We would not be as efficient as we are without them.

Thank you,

Bob Fifer
Chair, Broadband Advisory Board
Colorado Department of Transportation designee



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Executive Summary

In October 2020, the Colorado Broadband Office (CBO) partnered with the Governor's Office to release a [report on the Governor's Broadband Initiatives](#), with recommendations on how Colorado governs, maps, funds and deploys broadband across the state. In addition, Governor Polis issued Executive Order [B 2020 009](#), directing the Governor's Office of Information Technology (OIT) to establish an advisory board on broadband made up of state agencies that either have direct funding for broadband or promote broadband expansion in their programs.

The Broadband Advisory Board (BAB) was created in November 2020 to coordinate the State's broadband initiatives across state agencies, advise the Governor and approach broadband deployment in a holistic manner, as well as bring affordable, reliable, future-proof broadband services to all Coloradans. We are charged to provide feedback on policy, discuss future demand planning, educate stakeholders on the varied issues surrounding broadband, provide visibility into current broadband projects, and above all, collaborate with the public and private sectors and local and county governments to expand broadband access across the state.

Since publishing the Governor's Broadband Initiatives Report, the BAB and CBO have helped the state develop and implement strategies to improve data accuracy in our biannual data cycle, including: aligning data collection requirements with the Federal Communications Commission's (FCC) new [Broadband Data Collection \(BDC\) Program](#), increasing engagement with providers about data collection, and advocating for legislation that requires mapping program participation from Broadband Fund applicants and appellants.

This report includes updates from our Subcommittee on Digital Literacy and Inclusion, an update on broadband legislation passed during the FY 21 session, and sets the stage for discussions on future broadband interests and focuses for the BAB and CBO.

Past Broadband Advisory Board Meetings & Topics

- December 3, 2020: Establishment of Broadband Advisory Board
- December 17, 2020: Approval of policies and an update from partner agencies
- January 19, 2021: Presentation by Pew Charitable Trusts Broadband Access Initiative
- February 16, 2021: Update on Connecting Colorado Students Grant
- March 16, 2021: Presentation from the Colorado Department of Transportation on their fiber plan
- April 20, 2021: National Broadband Availability Map program and update on the Colorado Broadband Map
- May 18, 2021: Annual Report brainstorming
- June 15, 2021: Presentation from Office Economic Development and International Trade

Subcommittee on Digital Literacy and Inclusion

Defining digital equity, literacy, resilience and inclusion

Digital literacy and access to the internet are considered a “super social determinant of health” because they are the backbone for all other social determinants of health (economic sustainability, health care system, community and social context, food, education, neighborhood and physical environment).¹ To ensure the health of its communities and economy, Colorado has taken strategic steps toward **digital equity**: a state in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy. The three key components of digital equity include:

- Access to affordable, high-speed internet
- Access to affordable, web-enabled technology
- Access to relevant and high-quality, effective training and support for digital skill development and use

Digital literacy is the ability to use information and communication technologies to find, evaluate, create and communicate information, requiring both cognitive and technical skills.² **Digital resilience** is having the awareness, skills, agility and confidence to be empowered users of new technologies and adapt to changing digital skill demands.³ **Digital inclusion** refers to the activities necessary to ensure that all individuals and communities have access

¹ Sieck, C.J., Sheon, A., Ancker, J.S. et al. Digital inclusion as a social determinant of health. *npj Digit. Med.* 4, 52 (2021). <https://doi.org/10.1038/s41746-021-00413-8>

² Adapted from [National Digital Inclusion Alliance definition](#)

³ DigitalUS. Retrieved at <https://digitalus.org/our-work/>

to information and communication technologies, and the literacy and resilience to use them.⁴ Digital inclusion ultimately leads to digital equity.

The Gaps

In Colorado and across the country, there are significant gaps in access to web-enabled technology, with people across industries and demographics lacking the skills they need to use digital tools for work, learning and daily life. As of March 2021, 60,108 households in Colorado with children in the K-12 system have inconsistent access to computers for educational purposes and 64,878 households have inconsistent access to the internet for educational purposes.⁵ Across the state, 151,128 households (7.15%) have no computer, and 87,798 (4.15%) have only a smartphone.⁶ For more data on the digital divide, visit cdle.colorado.gov/digitalinclusion.

Subcommittee on Digital Literacy and Inclusion

As the CBO and BAB collaborate and coordinate to develop broadband policies that expand access to high-speed internet, those policies have been/will be informed by working with the [Office of the Future of Work](#) (OFOW) in the [Colorado Department of Labor and Employment](#) to advance digital literacy and inclusion. In March 2021, as directed by [Executive Order](#), the Subcommittee on Digital Literacy and Inclusion (SDLI) was created to discuss, research, analyze and draw conclusions concerning digital literacy and inclusion and to provide regular updates to the BAB concerning such discussions. The key responsibilities of the SDLI include:

- Coordinating and convening state level efforts to raise awareness of and address digital inequity
- Educating policymakers, local governments and stakeholders on the importance of digital equity, common terms and definitions, themes, best practices, and available resources.
- Developing policy supportive of digital equity
- Strengthening and supporting local digital equity ecosystems
- Guiding data, research and best practices

The SDLI has three working groups to support digital literacy and inclusion efforts:

- Policy: Identify and/or design state and federal policy solutions for increasing digital equity at the individual, systems, local and state level.
- Data: Develop baseline digital literacy and inclusion levels across Colorado communities and populations to inform 2022-23 digital inclusion development goals for the state.

⁴ Adapted from [National Digital Inclusion Alliance definition](#)

⁵ U.S. Census Bureau (April 2021). Week 27 Household Pulse Survey: March 17- March 29. Retrieved at <https://www.census.gov/data/tables/2021/demo/hhp/hhp27.html>

⁶ Digitunity. Technology Gap Map. Retrieved at <https://digitunity.org/the-issue/technology-gap-map/>

- Promising Practices: Research and identify promising practices to amplify, scale or adopt as part of the SDLI's efforts. Promising practices should consider each component of digital equity and the individual and systems level.

The SDLI launched on April 27, 2021. with 54 representatives from state agencies, city and county agencies, nonprofit and community-based organizations, internet service providers, and education providers. The SDLI meets bimonthly, with working group meetings taking place in the alternating months. Updates will be provided at the monthly BAB meetings, initial recommendations from the SDLI will be submitted to the BAB by December 2021, and working groups will be assessed for their utility moving forward.

Legislative Cycle FY 21

The 2021 legislative session was busy for [broadband legislation](#). Not only were there large investments made with federal dollars, but policy was added or amended to ensure investments are targeting the most in need areas of the state. Most notable are HB21-1109, HB21-1289, and SB21-060. However, SB21-103 and SB21-072 also impact broadband.

The session included the passage of three bills focused on centralizing the coordination of broadband policy, the collection of granular broadband availability data, targeted infrastructure investment and the collection of consumer complaints.

Policy Highlights

- The Colorado Broadband Office was codified in statute.
 - The CBO was created in [EO D-2012-037](#). Legislation added the office in statute, which will allow for more efficient and centralized coordination of policy and infrastructure investment throughout the state.
 - The office was also given the authority to receive consumer complaints on broadband service.
- The Broadband Deployment Board (BDB) moved over to OIT from the Department of Regulatory Agencies (DORA). In addition to the codification of the CBO, this move assists in centralizing the coordination of broadband throughout the state.
- A requirement was added to the Interconnectivity Grant Program at DOLA to submit to the CBO for review and recommendations a copy of each application that DOLA received if the applicant seeks grant money for broadband planning or infrastructure.
- The BDB was given authority to issue requests for proposals.
 - Up to 60% of the yearly fund will be to target chronically unserved areas
 - The Board will use the maps of unserved Colorado to determine counties/areas of interest and then request proposals for those areas from service providers.
- Any internet service provider (ISP) that does business with the state (apply for grants, right of first refusal on grants, receive federal grant assistance) is required to submit granular, address-level data.

- The Office of Consumer Counsel was given the authority to intervene and represent consumers in cases before the Colorado Public Utilities Commission that relate to a telecommunication service.

Funding

- The BDB received its annual appropriation for grants from HCSM of around \$10M.
- \$75M of federal revenue was allocated to broadband infrastructure
 - \$35M to BDB for last-mile grants
 - \$5M to DOLA for middle-mile grants
 - \$35M to OIT, which will be distributed as \$10M each for the Ute Mountain Ute and Southern Ute Indian Tribes, and \$10M for grants to assist rural telehealth providers in upgrading equipment in their facilities, and \$5M to create a program to make access to broadband service more affordable by reimbursing Colorado subscribers for costs incurred in accessing broadband service.
- CDE received \$20M from General Fund for award grants through the Connecting Colorado Students grant program to increase access to broadband services for students, educators, and other staff who lack stable, reliable internet access for online learning.

Future Broadband Interests

The BAB hosted a brainstorming session in May to discuss and receive feedback from stakeholders on its priorities for the coming year. The discussion emphasized stakeholders' desire to collaborate across the state in the expansion of broadband and highlighted a number of areas of particular interest to the public. The Board focused the discussion on policy, funding and advocacy, along with several issues under each.

Policy

One of the core responsibilities of the BAB is to provide collaborative policy recommendations on broadband to the Governor and to the Colorado General Assembly. Since the beginning of the 2021 legislative session, CBO's legislative liaison has held bi-monthly stakeholder meetings to provide policy updates and engage stakeholders in open discussions on broadband policy priorities and ideas. These discussions were instrumental in the development of policy priorities for the BAB. Each of these policy issues will be discussed in depth in the coming year, with the goal of identifying potential policy recommendations.

Focus Areas

- Access – Examining the issues surrounding access for Coloradans, including but not limited to:

- Availability of connections
- Reliable speeds
- Adoption of services, including a focus on:
 - Creation of a Consumer Adoption Office
 - Provide access to devices, support enrolling in services, and train on how to use devices and services
 - Digital inclusion and equity
- Affordability
 - Understand the full cost of deployment and how those costs are passed down to consumers, as well as policies that may hamper affordability (SB152 municipal broadband ban, municipal franchise agreements, return on investment etc.)
- Evaluate and update state speed goals
- Capacity of the network to meet broadband needs across the state
- Permitting and rights of way
- Mapping – Accurate data to better deploy state and federal funding
- Future technology – Plan for the future with policies that support innovation
- Infrastructure – Access policies that encourage infrastructure deployment, including:
 - Dig-once policies
 - Cost sharing
 - Public-private partnerships (P3s)

Funding

Colorado has two funding programs, for last-mile and middle-mile infrastructure deployment. However, with the influx of stimulus funds from the federal government, the BAB is focused on how all sources can be utilized to shape our economic development and growth, promote digital equity and change the lives of all Coloradans.

During the brainstorming session, it became increasingly clear that we should not only focus on how organizations can access federal funding for broadband, but also how to leverage cost-sharing arrangements through public, private, and philanthropic partnerships.

Focus Areas

- Recurring vs. one-time funding – Examining how this affects deployment and how to utilize the different opportunities
 - Explore pros/cons of funding operating costs
- Federal funding opportunities
 - How to help organizations apply for funding, including:
 - Identification of appropriate programs and application requirements

- More support from CBO with on-the-ground staff to support community project planning and implementation
- Examining how to encourage inclusion of small/rural ISPs (identify federal funding impediments unique to them)
- State funding to supplement federal match requirements
- COVID-19 relief funding
 - Examining how communities can use this one-time funding to enhance deployment solutions funded by recurring or other federal funding
- American Jobs Act/Infrastructure Bill
- Public-private partnerships
 - Engage philanthropic organizations
 - Incentives for companies, counties and local government to invest/cost sharing
 - Utilization of opportunity zones with the Colorado Office of Economic Development and International Trade (OEDIT)
- State funding
 - Consider the long-term impacts of projects so that they provide the best solutions for the future
 - Clarity is needed around how the BDB, DOLA, CDOT, OEDIT and BAB will work together to utilize funding for broadband infrastructure
 - Consider training to increase the workforce needed for broadband

Advocacy

Another core responsibility of the BAB is to educate and engage the public/stakeholders on broadband as a whole. Therefore, this part of the brainstorming session was focused on how the BAB could increase engagement with the community. In an effort to continue outreach to the community and gain a broader perspective of the needs of our community, Board staff produced and released an online survey requesting feedback on specifics around the critical topics, composition of, and communication from the board.

Focus Areas

- Stakeholders to include in BAB conversations
 - Special districts
 - Individuals with disabilities (hearing, cognitive, sight)
 - Public safety
 - Tribal nations
 - Colorado rural health centers
 - Colorado Rural School Alliance (Colorado Board Of Cooperative Educational Services)
 - School districts

- Community advocates for the elderly, communities of color, urban communities and historically disadvantaged communities
- Communication methodology
 - Omni-channel marketing strategies and programs
- Research
 - Additional research for all policy and funding options
- Digital equity and inclusion
- Consumer Adoption Office
 - Where can consumers take their complaints about broadband for resolution?