



COLORADO

**Governor's Office of
Information Technology**

Joint Technology Committee - Interim Hearing

October 2022

Julia Richman, Deputy Executive Director

Michael McReynolds, Legislative Liaison



Agenda

- Digital Government Strategic Plan
- Technical Debt Portfolio Updates
 - Questions
- Advance Colorado Broadband Updates
 - Questions



Digital Government Plan Released!

Improving Access and
Delivery of Digital
Services in Colorado

<https://oit.colorado.gov/digital-government>

2022 STATE OF COLORADO DIGITAL GOVERNMENT STRATEGIC PLAN





Methodology

A current state assessment of the quality and accessibility of Colorado's digital services informed our plan. The assessment included:

2,000+

Colorado residents surveyed and interviewed

80+

interviews with state agency, OIT, SIPA, organization, and local government leaders

20+

services' digital availability and quality assessed

200+

local and regional governments and community organizations surveyed



These inputs were used to develop **goals, strategies and enablers** for Colorado digital government



This assessment and the resulting **strategy** was further refined with stakeholders across:

- The Office of Information Technology (OIT)
- The Information Technology Strategy and Planning Board (ITSPB)
- State agencies
- State Internet Portal Authority (SIPA)

Aspirations for digital government



Connect all Coloradans

Bolster economic opportunity by connecting 99% of residents, particularly those in growing rural communities, to high-speed internet.



Expand opportunity and reduce poverty

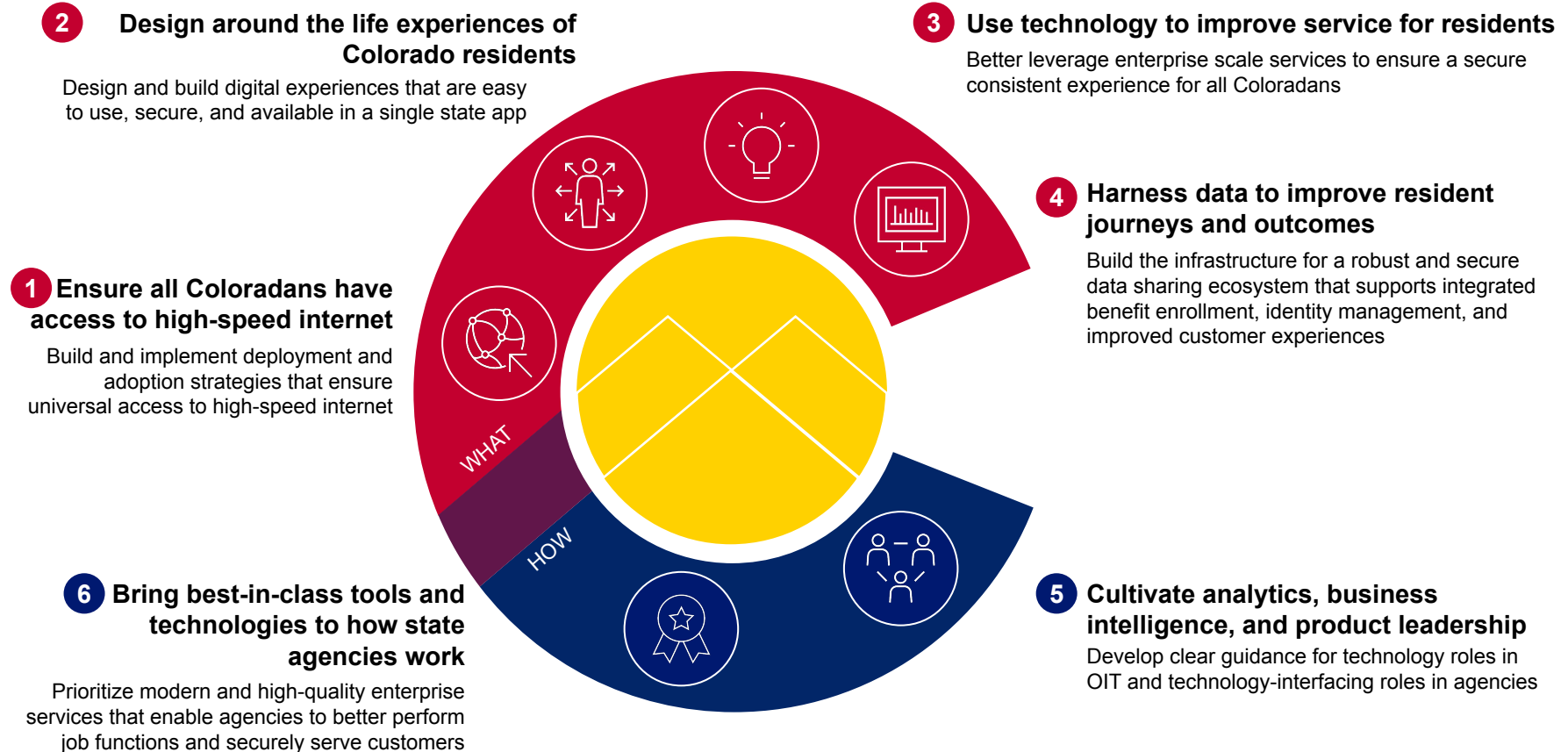
Ensure every resident understands and easily accesses the programs and services for which they are eligible to improve income security, health outcomes and overall wellness.



Make government easy

Make interacting with state government simple, less time consuming, and more digital, especially for the most essential services and programs.

Six strategies can enable Colorado to deliver on these aspirations



Implementation Funding

Strategies, Actions, Milestones

Funding
Identified

Funding
Secured

1.	Ensure all Coloradans can adopt and access high-speed internet		
a.	Five-year action plan to secure federal funding for broadband	✓	✓
b.	Develop a series of initiatives to address adoption and equity gaps	✓	✓
c.	Continue to meaningfully engage stakeholders so access and adoption initiatives meet community and resident needs	✓	✓
d.	Grow the workforce required to build and deploy fiber and broadband	✓	✓
2.	Design around the life experiences of Colorado residents		
a.	Simplify, secure and digitize high volume state services into a single state app (e.g., myColorado)	✓	✗
b.	Provide customers world-class tools and services to get answers (i.e., "self-service") especially around later stages of customer journeys (e.g., renew, update, resolve) with modern, secure, standardized tools that help them resolve questions on their own	✗	✗
c.	Integrate and consolidate service desk and support functions across agencies to provide support for residents	✗	✗
d.	Develop standards for resident ownership of decisions about if and how their data is shared across state government	✓	✗
e.	Root experience design in user-backed research and human-centered needs, including a spectrum of resident needs	✗	✗
f.	Name the strategic leader for resident experiences across journeys within OIT	✗	✗
g.	Ensure all resident journeys are cybersecurity	✓	✗

Strategies, Actions, Milestones		Funding Identified	Funding Secured
3.	Use technology to improve service for residents		
a.	Enhance the engagement model between OIT IT Directors and department leadership to strengthen the use of technology to enable strategic imperatives within and across agencies	✓	✓
b.	Reinforce OIT's charge to work across departments, identifying high-value enterprise services to address shared needs (e.g., data integration, identity management, product management tools and approaches) and final decision rights on determining enterprise IT solutions	✓	✗
c.	Focus on adoption and change management in technology implementations and center the needs of customers/residents when implementing technology solutions	✓	✓
d.	Improve demand management and service portfolio management under OIT, including driving agency compliance and understanding of OIT's decision rights	✓	✓
e.	Continue to invest in PMO work as part of IT transformation and ensure understanding and compliance with OIT governance (e.g., IT Strategy and Planning Board, Rates and Services Board, Solution Review Board, Risk Steering Committee, Architecture Review Board, Government Data Advisory Board, PMO)	✓	✓
f.	In support of Senate Bill 22-191, implement clearer protocols and lines of communication (e.g., agency request status, clear OIT owner) for agency procurements	✓	✓
4.	Harness data to improve resident journeys and outcomes		
a.	Continue to invest in and accelerate implementing the state's data strategy to get the right information to the right individual at the right time to ensure ALL Coloradans can access to affordable, high-quality services	✓	✗
b.	Enable secure data sharing and interoperability to accelerate cross-agency delivery	✓	✗
c.	Implement resident identity management and resolution to unlock value (e.g., proactive eligibility notification, single-sign on)	✓	✗
d.	Embed safeguards and best-in-class cybersecurity to enable secure data sharing while maintaining resident trust	✓	✗

Strategies, Actions, Milestones		Funding Identified	Funding Secured
5.	Cultivate analytics, business intelligence, and product leadership		
a.	Define a talent strategy for technical roles in OIT and technology-interfacing roles across agencies and define clear guidance for attracting, onboarding, and reporting lines for these roles	✓	✓
b.	Invest in digital literacy capability-building across agencies	✗	✗
c.	Incorporate standard analytical leadership and customer experience skills into job requirements for agency leadership roles	N/A	N/A
d.	Seek opportunities for agencies to improve product ownership and strategic/service decision making	✓	✓
6.	Prioritize modern and high-quality enterprise services		
a.	Focus on raising the bar/ making world-class end-user computing, networking, productivity tools, cybersecurity, and help desk services to enable state agencies to be more effective	✓	✗
b.	Establish more effective knowledge management, ticketing, and self-help through a single portal (i.e., no back channels) for state agencies to access IT help	✓	✗
c.	Continue retiring technology debt and modernizing core platforms where needed (e.g., current technology planning workbook initiative, including security and the voice of users in prioritization (e.g., Ease of Use and Usefulness data digital gov survey)	✓	✗
d.	Adhere to OIT EPMO stage gates	✓	✓



What's Next

Transforming digital government and resident experiences will be enabled by key factors across the state:

- A common vision of digital government across state agencies.
- Strong sponsorship from the Governor's Office and agency leadership, along with appropriate resourcing from the legislature.
- An integrated, enterprise view of all technology in the state, including agency applications and services.
- Clear ownership, accountability and decision governance of the digital government priorities and initiatives across the state.
- A statewide culture that centers the needs of Colorado residents in decisions.



Technical Debt Portfolio Updates



Tech Debt Portfolio Updates

The following projects make up the tech debt portfolio. 23.5% spent includes the forecasted expenditure of the total funds

- **Mainframe Decommission**
 - State ID Module (SIDMOD): Continued solutioning with stakeholders including immediate risk mitigation prior to full replacement.
 - Electronic Benefit Transfer (EBT): Continued solutioning with stakeholders.
 - Automated Child Support Enforcement System (ACSES) Modernization: Continued solutioning.
 - Colorado Personnel Payroll System (CPPS) port application to server environment: Vendor selection.
 - Replacement of Managed File Transfer (MFT) (Cyberfusion): Cloud migration discovery in progress for remaining Social Security Administration (SSA) and Internal Revenue Service (IRS).
 - Stabilization of the mainframe to sustain it for modernizing workloads off is in progress.
- **IT Asset Management (ITAM)**
 - 3 IT Asset Analysts were onboarded this month.
 - 92% hardware assets were recorded and are on track for most agencies. The software asset management is in early stages of discovery.



Tech Debt Portfolio Updates Cont.

- **Security Vulnerabilities Refactoring**
 - Work started on CDOT vulnerabilities.
- **Exit eFORT and Cloud Migration**
 - eFORT & Cloud Migration: Cloud and capacity licensing procurement is in progress. 58 of the 900 virtual machines have been moved from eFORT to the Lakewood Data Center.
 - Upgrading SQL servers from 2008: Met with the vendor for migration of services to the cloud.
 - Windows 2008 Retirement: Remaining Windows 2008 servers compiled and are under analysis.
 - Storage Renewal: Backup and Recovery capacity-upgrade requisitions were submitted.
 - CORE Network Refresh: - VoIP and Telecom contract has been signed, the Statement of Work for Identity Service Engine (ISE) is under review, Wide Area Network (WAN) optimization is in RFI review, and network infrastructure refreshes are going smoothly.

eFORT Migration as of August 2022

*Each rack shown represents 5 racks.





COLORADO

**Governor's Office of
Information Technology**

Questions



COLORADO

Broadband Office

Governor's Office of Information Technology

Advance Colorado Broadband Updates

Brandy Reitter, Executive Director



Broadband Acronyms Defined

CPF - <i>Capital Projects Fund</i>	BEAD - <i>Broadband, Equity, Access and Deployment</i>
CBO - <i>Colorado Broadband Office</i>	FCC - <i>Federal Communications Commission</i>
NTIA - <i>National Telecommunications and Information Administration</i>	BDB - <i>Broadband Deployment Board</i>
ISP - <i>Internet Service Provider</i>	SLFRF - <i>State and Local Fiscal Recovery Fund</i>
ACP - <i>Affordable Connectivity Program</i>	LOI - <i>Letters of Intent</i>
HCSM - <i>High-Cost Support Mechanism</i>	Mbps - <i>Megabytes Per Second</i>
DE - <i>State Digital Equity</i>	EMM - <i>Enabling Middle Mile</i>

The Broadband Roadmap



Connecting 99% of Colorado households to high-speed internet by 2027



Build a network for future generations

Prioritize fiber, the fastest, most-reliable broadband

Invest in mapping and analytics to assess areas of critical need

Support the industry by expanding workforce development programs and addressing labor shortages



Strengthen resilience across Colorado communities through broadband

Foster stakeholder engagement

Share broadband networks

Encourage public-private partnerships



Expand digital inclusion & adoption to achieve affordability, access and digital literacy

Promote programs that make high-speed internet more affordable

Invest in programs that supply devices and educate residents on how to use them



Enable Colorado to thrive by fostering and supporting a digital economy

Foster a culture of innovation and efficiency among government agencies

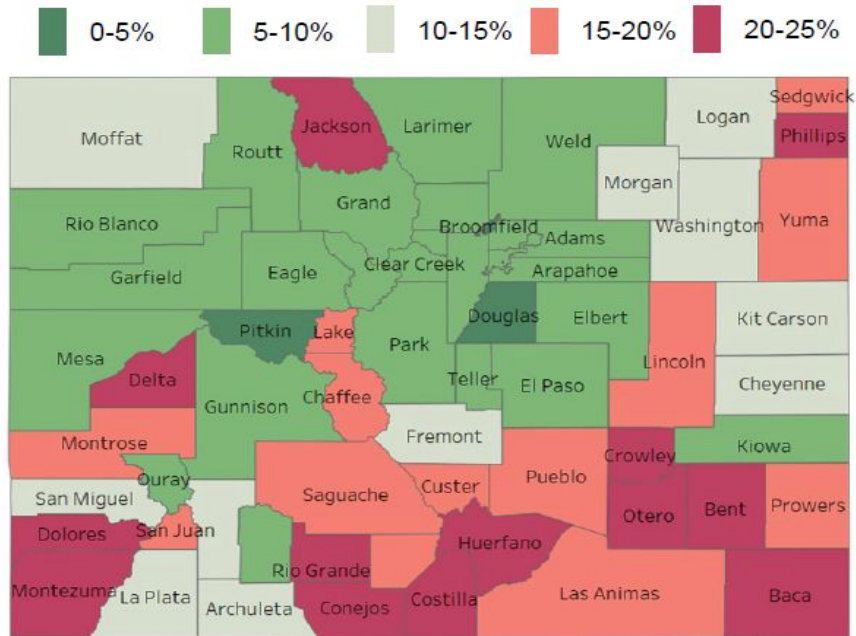
Leverage technology and improve government services



Households Without Internet

166K households in Colorado lack internet, because of gaps in access & digital equity

Households without at-home internet service, percent of county



166k households in Colorado currently do not have reliable internet

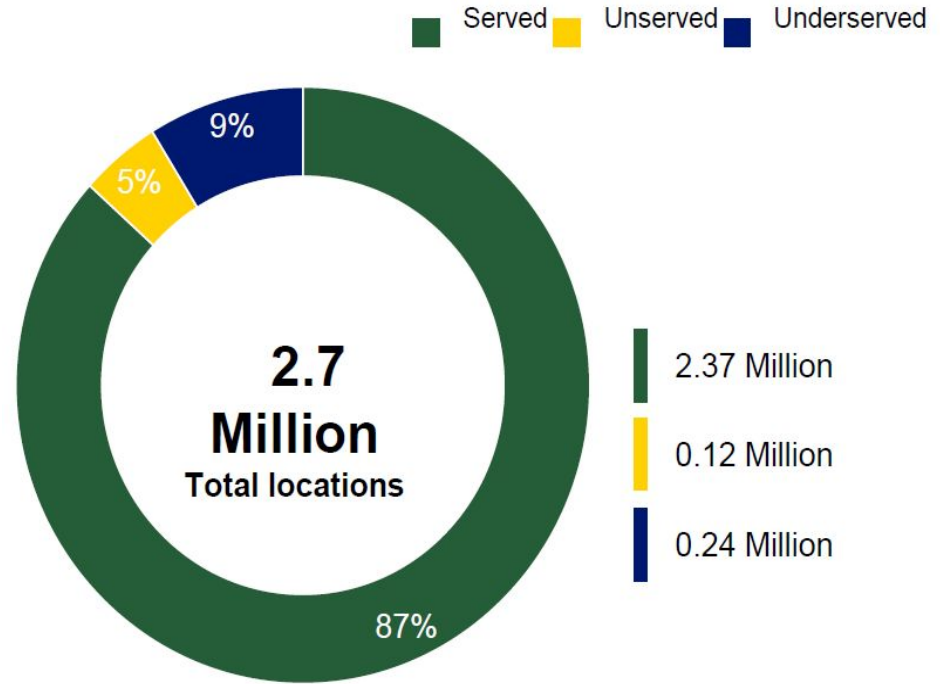


Broadband Availability

14% of locations in Colorado are unserved or underserved

360k locations lacking adequate access to broadband

Colorado broadband availability^{1,2}, M of locations

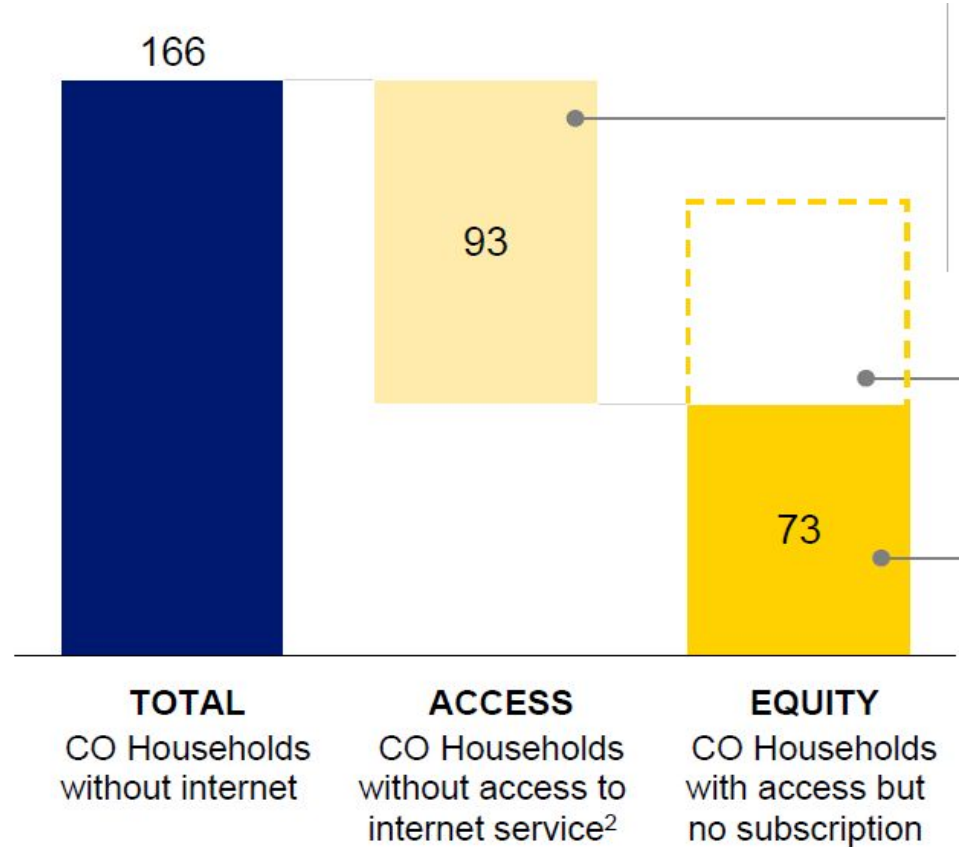




Internet Adoption Gaps

56% is due to limited access and gaps in coverage

44% is due to issues with affordability, lack of devices and literacy





Workforce Development is Important

50% of deployment-related roles in CO could show shortages, especially outdoor, labor-intensive roles

Key takeaways

Manual roles are typically the occupations where the largest gaps are expected

Roles with highest 2026 gaps (Gap in 2026, % of total gap)

- **Laborers:** ~1.2K (~34%)
- **Foremen:** ~650 (~18%)
- **Locators:** ~650 (~18%)
- **Restoration crews:** ~450 (~13%)
- **Safety leads:** ~160 (~5%)

Labor could potentially cross state lines to address gaps



Roadmap to Connect 99% by 2027

Connectivity and Funding Utilization Percentage Table*

	2022	2023	2024	2025	2026	2027***	Total
% of Households Connected	91.1%	91.1%	92.4%	92.6%	95%	99%	99%
<i>Federal & State Program Utilization</i>							
HCSM**	20%	16%	16%	16%	16%	16%	100%
SLFRF	26%	37%	37%	0%	0%	0%	100%
CPF	0%	0%	20%	40%	40%	0%	100%
DE	0%	53%	47%	0%	0%	0%	100%
BEAD	0%	0%	0%	25%	75%	0%	100%
EMM	0%	0%	20%	40%	40%	0%	100%



Individual Agency Broadband Plans

Takeaways

- Improve access through physical and digital adoption.
- Leverage funding and facilitate public-private partnerships.
- Improve administrative efficiency and effectiveness.
- Outreach and communication is important.
- Leverage community anchors to expand access.
- Telehealth, literacy and education services are a high priority.
- Support and improve digital equity and literacy.
- Collaborate and build capacity to support broadband deployment.
- Integrate technology platforms in the field.



Broadband Roadmap

Next Steps

- Initiated 45 day feedback process: October 11 - November 22
- Publish and incorporate feedback
- Set up implementation matrix for the Roadmap
- Revisit annually



CBO Funding Program Milestones

Capital Projects Fund (CPF) \$171M: Program plan submitted to U.S. Treasury

Broadband, Equity, Access & Deployment (BEAD) \$400M: Contracting for 5-Year Action Plan and initiating an industry workforce plan.

Enabling Middle Mile (EMM) \$100M: CDOT submitted the State's plan and CBO provided four letters of support to stakeholders.

State Digital Equity (DE) \$21M: Hired a Digital Equity Navigator.

Telehealth \$15M: Executing 10 contracts totaling \$4M.



CBO Projects & Outreach

Affordable Connectivity Program (ACP): Since August, 12,592 new enrollees representing a 6.2% increase; ~21.8% of eligible households are now enrolled. Total enrollment 166,140. Coloradans have received over \$23.5M since January.

Broadband Deployment Board (BDB): Working on winter grant cycle appeal process and award letters disseminated November 11.

Broadband Mapping Process: The CBO has identified over 170 locations in 9 counties that are missing and will continue submitting data to the FCC.

Stakeholder outreach and roundtables scheduled: Nov. 15 - Industry Roundtable and Nov. 16 - Community Leaders Roundtable.



COLORADO

Broadband Office

Governor's Office of Information Technology

Questions?









Appendix






25 services included in the assessment

(Digital Government Strategic Plan)



Income Support

-  Applying for and receiving **cash assistance**, individually/for family, through Colorado Works (TANF)
-  Applying for and receiving nutrition assistance from the **Colorado Basic Food Program**
-  Applying for, updating information, and/or receiving **unemployment benefits** from the State
-  Applying for, receiving, and/or renewing eligibility for **affordable housing, mortgage, or rental assistance** in the State of Colorado
-  Applying for and/or receiving **energy assistance** from the State of Colorado
-  Applying for and/or receiving **workers compensation** from the State of Colorado




Labor and workforce

-  Starting and managing a **new business** in the State of Colorado
-  Using a **Colorado Employment Security Department**, Workforce Association, Work Source, or Local Workforce Dev Boards service
-  Applying for and receiving a new, renewed, or replacement **professional license**


Healthcare coverage

-  Applying for and receiving **healthcare coverage from Health First Colorado or Connect for Health** from the State of Colorado²
-  Finding and enrolling yourself or a loved one in **behavioral health services**


Tourism and Leisure

-  Visiting a **Colorado State park**
-  **Reserve a campsite**
-  Applying for and receiving a new, renewed, or replacement **sporting license** (e.g., hunting, skiing)



Veterans Services

-  Applying for and receiving **veterans' services** from the State of Colorado



Corrections

-  Applying to **visit an incarcerated individual** at a state prison or virtually


Human Services

-  Applying for or receiving state support for using **childcare and finding a care center**
-  Applying for **aging benefits** from the State of Colorado (individually or as a caretaker)


Transportation

-  **Registering or reregistering a motor vehicle** with Colorado
-  Applying for and receiving a new, renewed, or replacement **driver's license**



Tax

-  Filing a **state tax return** (income, business) for the State of Colorado

Environment

-  Applying for **environmental permits** (e.g., well capping, solar panels)

Education

-  Enrolling in **early childhood education** or finding childcare
-  Applying for **higher education financial aid** through CASFA

Agriculture

-  Applying for and administering **agriculture licenses** from the State of Colorado