



COLORADO

**Governor's Office of
Information Technology**

Joint Technology Committee Hearing

December 2022

Anthony Neal-Graves, Chief Information Officer & Executive Director

Julia Richman, Deputy Executive Director

Ray Yepes, Chief Information Security Officer

William Chumley, Chief Customer Officer

Michael McReynolds, Legislative Liaison



Agenda

- Organizational Update & WIGs
- Big Three
 - Technical Debt
 - IT Transformation
 - Digital Government
- myColorado
- FY 2023-24 Budget Package
 - Capital IT Request
- Cybersecurity
- Legislative Implementation

Core Values



COLORADO
Governor's Office of
Information Technology
Serving people serving Colorado

INTEGRITY

We inspire trust by communicating with openness, honesty and authenticity.

TEAMWORK

We achieve more together by collaborating in a flexible and inclusive way.

INNOVATION

We challenge the status quo to identify new and better ways of doing things.

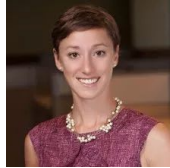
SERVICE

We build collaborative and consultative partnerships to deliver optimal results.

OIT Executive Staff



Chief Information Officer & Executive Director, Anthony Neal-Graves



**Deputy Executive
Director
Julia Richman**



**Chief Customer
Officer
William Chumley**



**Broadband Office
Executive Director
Brandy Reitter**



**Chief Technology
Officer
Alex Pettit**



**Chief Financial
Officer
Alex Monts**



**Chief Information
Security Officer
Ray Yepes**



**Director Colorado
Digital Service
Matthew
McAllister**



**Chief
Communications
Officer
Brandi Wildfang
Simmons**



**Chief People
Officer
Bob Nogueira**



**Chief Revenue
Officer
Laura Calder**

WILDLY IMPORTANT GOALS

WIG 1



Transform
Technology
in the State

WIG 2



Expand
Broadband
Access

WIG 3



Advance
Digital
Government
Services

WIG 4



Increase
Employee
Engagement



What are the office's major initiatives and Tech Strategy?

The Big Three



Connecting the Dots Between OIT's "Big Three" Initiatives





What is technical (tech) debt and why work on it?

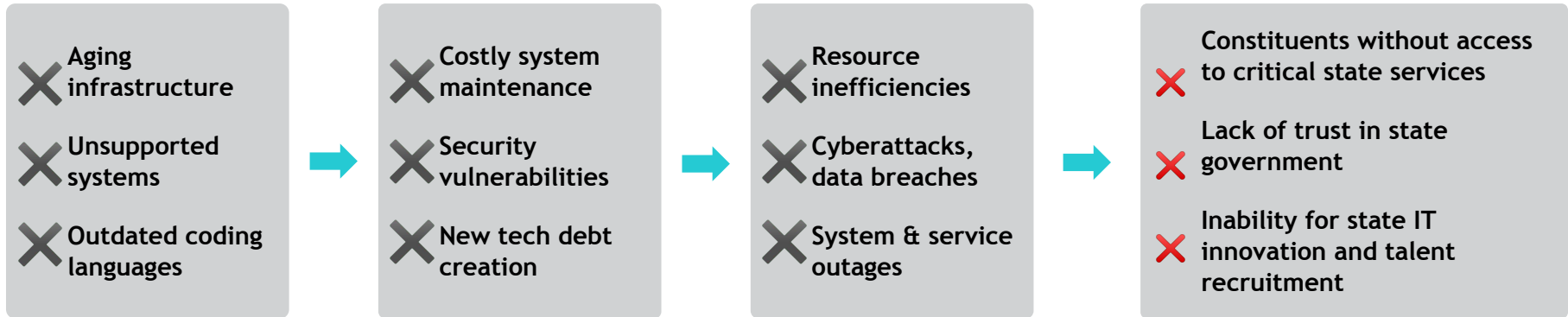
the cost to maintain
older & unsupported
technology



Tech Debt: Not just an IT problem...

Tech debt reaches into all areas of business, including service delivery and customer experience

Left unaddressed, tech debt costs (e.g., money, time and effort) compound and continue to grow. Furthermore, the State of Colorado cannot advance digital government services with outdated and unsupported legacy systems.



*As of December 2021

Technical Debt

A growing threat to the state's ability to advance and transform services

\$465.1M

UNFUNDED TECH DEBT ACROSS EXECUTIVE BRANCH AGENCIES

RESEARCH SUGGESTS

23%

DEVELOPER TIME WASTED ON TECH DEBT

1 in 4

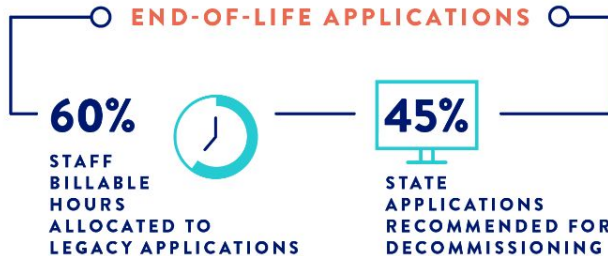
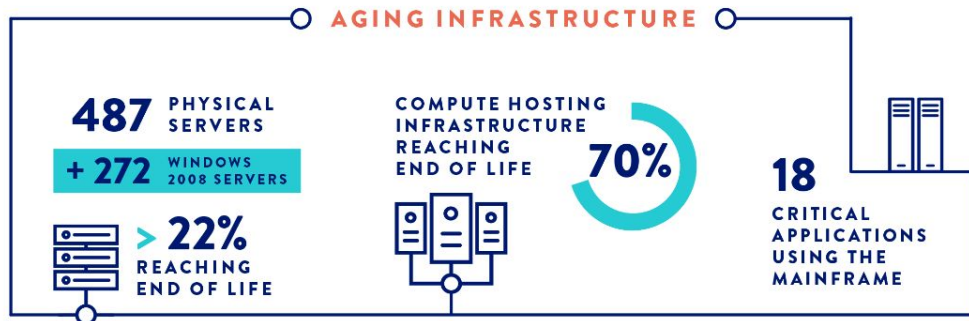
TECH DEBT CASES FORCE DEVELOPERS TO INTRODUCE NEW DEBT

AVG. COST OF IT DOWNTIME

\$5.6K = \$336K

PER MINUTE

PER HOUR



IMPACTS OF REDUCING TECH DEBT



SAVE **\$10M+** IN STATE DOLLARS ANNUALLY

DECREASE IT FOOTPRINT BY **12K** SQUARE FEET

REDUCE CYBER RISKS



IMPROVE TECH ACCESS FOR **1 in 5** COLORADO ADULTS





Tech Debt Portfolio Updates

The following projects make up the tech debt portfolio - 33.76% spent including the forecasted expenditure of total funds

- **Mainframe Decommission**
 - Mainframe stabilization and rehosting contract was submitted for PO and will be going out for mini-solicitation. Each sub-project is dependent on this contract.
 - State ID Module (SIDMOD): Continued solutioning with stakeholders
 - Electronic Benefit Transfer (EBT): Discovery near completion. Continued development of requirements & high level architecture solution
 - Automated Child Support Enforcement System (ACSES) Modernization: Discovery and requirements gathering continue
 - Colorado Personnel Payroll System (CPPS) port application to server environment: High level solution/functionality requirements dev continues.
 - Replacement of Managed File Transfer (MFT) (Cyberfusion): Finalizing the consulting contract and scheduling start.
- **IT Asset Management (ITAM)**
 - 92% hardware assets recorded and are on track for most agencies
 - Software asset mgmt in early stages of discovery
- **Security Vulnerabilities Refactoring**
 - Work started on vulnerabilities and establishing priorities for other agencies
- **Exit eFORT and Cloud Migration**
 - Technical migration planning workshops are in progress. Agency migrations begin January 2023
 - Cloud Migration: Work continues to move virtual machines from one data center to the cloud to create space for agency migrations
 - Windows 2008 Retirement: Planning in progress
 - Infrastructure/Network/Storage Buildout: Storage equipment install and configuration complete
 - CORE Network Refresh: Router replacement is going as scheduled and we will wrap it up by end of January 2023
 - Numerous phases are advancing including enterprise wireless access points, and progress with other RFPs

eFORT Migration as of December 2022

*Each rack shown represents 5 racks.





What is IT Transformation and why do it now?

We are transforming our
technology delivery
today to support work
tomorrow



IT Transformation Program Overview



IT Transformation Program: align and standardize OIT's service offerings and processes, improve collaboration, and empower customer agencies to better own business strategies supported with technology.

Structure

5 work streams enable comprehensive problem-solving:
Governance, Finance, Talent, Services and Technology

Project teams composed mostly of OIT and agency staff
lead to sticky solutions and lasting change in 3-4 years

Outcomes

Transparency

- Align IT resources with priorities
- Improve oversight of IT

Efficiency

- Bolster IT flexibility
- Enhance IT management

Customer Satisfaction

- Improve leadership of IT business decisions
- Improve accountability over spend and outcomes



Governance

Delegation of Authority -
Process & Policy

Enhance Project &
Portfolio Management

Establish IT
Governance

Evaluate PMO
Capabilities

Enhance & Align OIT
Strategic Planning

Government Data
Advisory Board

Implement Enterprise
Risk Mgmt Methodology

Governance 2.0



Finance

IAs-Enterprise &
Recurring Services

Mature Vendor
Managementsystem

Implement Real-time
Billing

Establish IT Asset
Management

Financial
Transformation

Procurement
Evolution



Talent

Conduct Workforce
Planning

Pilot Agency Teams
Concept: OneOIT



Technology

SOC Web Strategy
& Toolkit

Plan for & Enable
Digital Transformation

ITSM Tool Suite



Service
Excellence

Optimize Agency
Ownership & Accountability

Align Service Catalog with
Best Practices

Enterprise Service Delivery
(Infrastructure)

Evaluate Stakeholder
Engagement

Product and Service Mgmt
Collaborative Roadmap

Agency Tech Debt
Reduction Plans

eFORT (DC Relo)
Plan

Network Service
Project

Evaluate Stakeholder
Engagement 2.0


Since August 2020, OIT has been collaborating with agencies to **reimagine IT** operations. IT Transformation has completed more than **29 projects** that have **increased efficiency, transparency and customer satisfaction**.




STOOD UP
7 GOVERNANCE BOARDS
AND COMMITTEES
TO OFFER CUSTOMERS MORE
OWNERSHIP
OF STATE IT DIRECTION



DEVELOPED
RELATIONSHIP AND
COMMUNICATION
STRATEGIES BASED
ON FEEDBACK FROM
4,800 CUSTOMERS TO
IMPROVE CUSTOMER SATISFACTION



CONDUCTED
TECHNOLOGY LIFECYCLE
PLANNING FOR
75% OF OUR IT
PRODUCTS
**TO REDUCE CURRENT AND
FUTURE TECHNICAL DEBT**



TRACKING
65,000
STATE HARDWARE ASSETS
IN **ONE** CENTRALIZED
SYSTEM



PUBLISHED
A SERVICE CATALOG PROVIDING
CUSTOMERS WITH PRODUCT
DESCRIPTIONS, COST &
PURCHASING INFORMATION FOR
50 OIT SERVICES



COLLABORATED
WITH AGENCIES TO CREATE
22 NEW SERVICES
AND RATES
**THROUGH THE NEW
RATES & SERVICES BOARD**



GATHERED
CUSTOMER FEEDBACK ON
62 CRITICAL & ESSENTIAL
OIT AND AGENCY
APPLICATIONS TO CREATE A **ROADMAP** FOR
FUTURE PRODUCT DEVELOPMENT



SAVING
PER YEAR
\$1.6 million
BY ENDING THE STATE'S
MOST EXPENSIVE LEASE
AND CONSOLIDATING INTO
ONE DATA CENTER



What is the picture of digital government in Colorado?

We've made huge strides
**but the gaps are
significant**



1: CO ranks in the top 10 of CX nationally, with opportunities to improve digital services at the later stages of the customer journey (e.g., renew, appeal, resolve)

In a survey of 1,921 Colorado residents, respondents expressed satisfaction with state services (average CSAT¹ 7.4 out of 10 among 21 state services surveyed)

Journey	Service	Journey (CSAT)								Update / Appeal	Resolve	Trend Past 3 years	
		Learn / Plan	Apply / Submit	Wait / Check	Obtain approval	Enroll / Access	Receive / Use	Renew	Renew				
1	Income Support	1	Employment benefits (UI & WC)	Orange	Orange	Orange	Orange	Yellow	Yellow	Orange	Red	→	
		2	Food assistance	Yellow	Yellow	Yellow	Green	White	Green	Orange	Yellow	↗	
		3	Affordable housing assistance	Orange	Orange	Orange	Yellow	Orange	Yellow	White	Orange	Red	→
		4	Temporary assistance for needy families	Orange	Orange	Orange	Orange	Yellow	Green	Yellow	Orange	Orange	→
Healthcare and Coverage	5	Medicaid	Yellow	Yellow	White	Green	Yellow	Green	Yellow	Orange	Orange	↗	
		6	Mental / behavioral health services	Orange	Orange	White	Orange	Yellow	Green	Yellow	Orange	Orange	↗
		7	Public health (vaccinations)	Green	White	White	White	Green	Green	White	-	Yellow	↗
Human Services	8	Aging benefits & financial assistance	Orange	Yellow	Orange	White	White	Yellow	Green	Green	Orange	→	
		9	Childcare support	Yellow	Yellow	White	Yellow	Yellow	Green	Yellow	Green	Orange	↗
Labor and workforce	10	Retirement benefits	Green	Green	Green	White	Green	Green	Yellow	Yellow	Yellow	↗	
		11	Small business financial support	Yellow	Yellow	White	Green	Yellow	Green	White	Green	Orange	→
		12	Professional licenses	Yellow	Yellow	Orange	White	White	Green	Green	-	Green	↗
		13	Economic development permits	Yellow	Green	Green	Green	Green	Green	Green	Green	Yellow	↗
		14	Business registration & permits	Yellow	Green	Yellow	White	White	Green	Yellow	Green	Yellow	↗
Veterans Services	15	Vocational / occupational training	Yellow	White	White	White	Orange	Orange	Yellow	-	Orange	↗	
		16	Veteran services	Green	Green	Yellow	White	Green	Green	Yellow	Green	Green	↗
Transportation	17	Vehicle services	Yellow	Yellow	Yellow	Green	White	Green	Green	Orange	Red	↗	
		18	Public transit	Yellow	White	White	White	Yellow	Yellow	White	-	Red	→
Tax	19	Tax return filing (business and individual)	Orange	Yellow	Yellow	Green	White	Green	Green	Orange	Red	→	
Tourism and Leisure	20	Sporting licenses	Green	Yellow	Green	Yellow	White	Green	Green	-	Orange	↗	
		21	State Parks and/or recreation licenses	Yellow	Yellow	Yellow	Green	Yellow	Green	Green	-	Yellow	↗

1 Focus on income support / health services: Opportunities for improvement exist among more complex services in income support, healthcare, and human services

2 Improve later stages of the journey: Satisfaction scores decline toward the end of the user journey –which is typically the most salient (e.g., memorable) part of their experience

3 Maintain positive trajectory: Of the 21 services assessed, resident reported that their experience has either improved (66%) or stayed the same (33%) over the last 3 years

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



2 Design around the life experiences of Colorado residents

Design and build digital experiences that are easy to use, secure, and available in a single state app

3 Use technology to improve service for residents

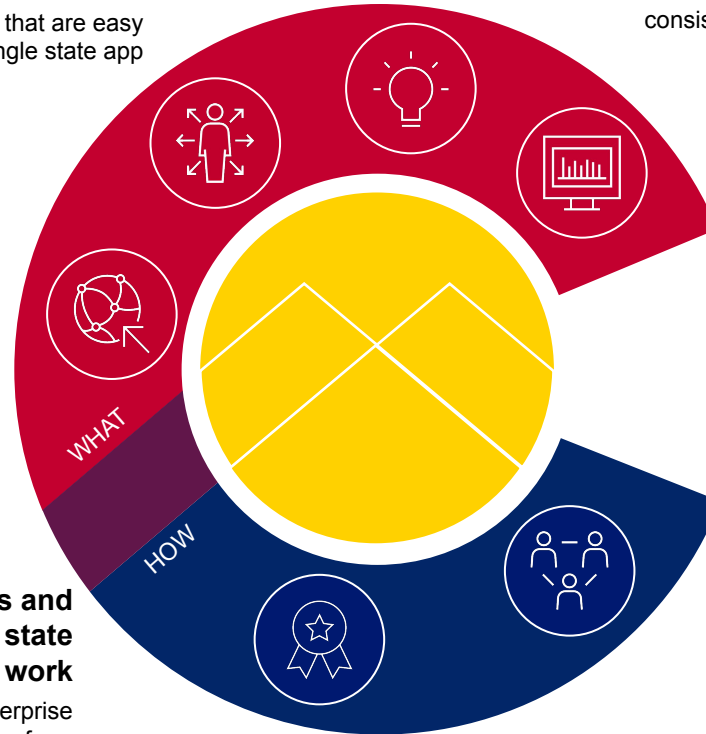
Better leverage enterprise scale services to ensure a secure consistent experience for all Coloradans

4 Harness data to improve resident journeys and outcomes

Build the infrastructure for a robust and secure data sharing ecosystem that supports integrated benefit enrollment, identity management, and improved customer experiences

1 Ensure all Coloradans have access to high-speed internet

Build and implement deployment and adoption strategies that ensure universal access to high-speed internet



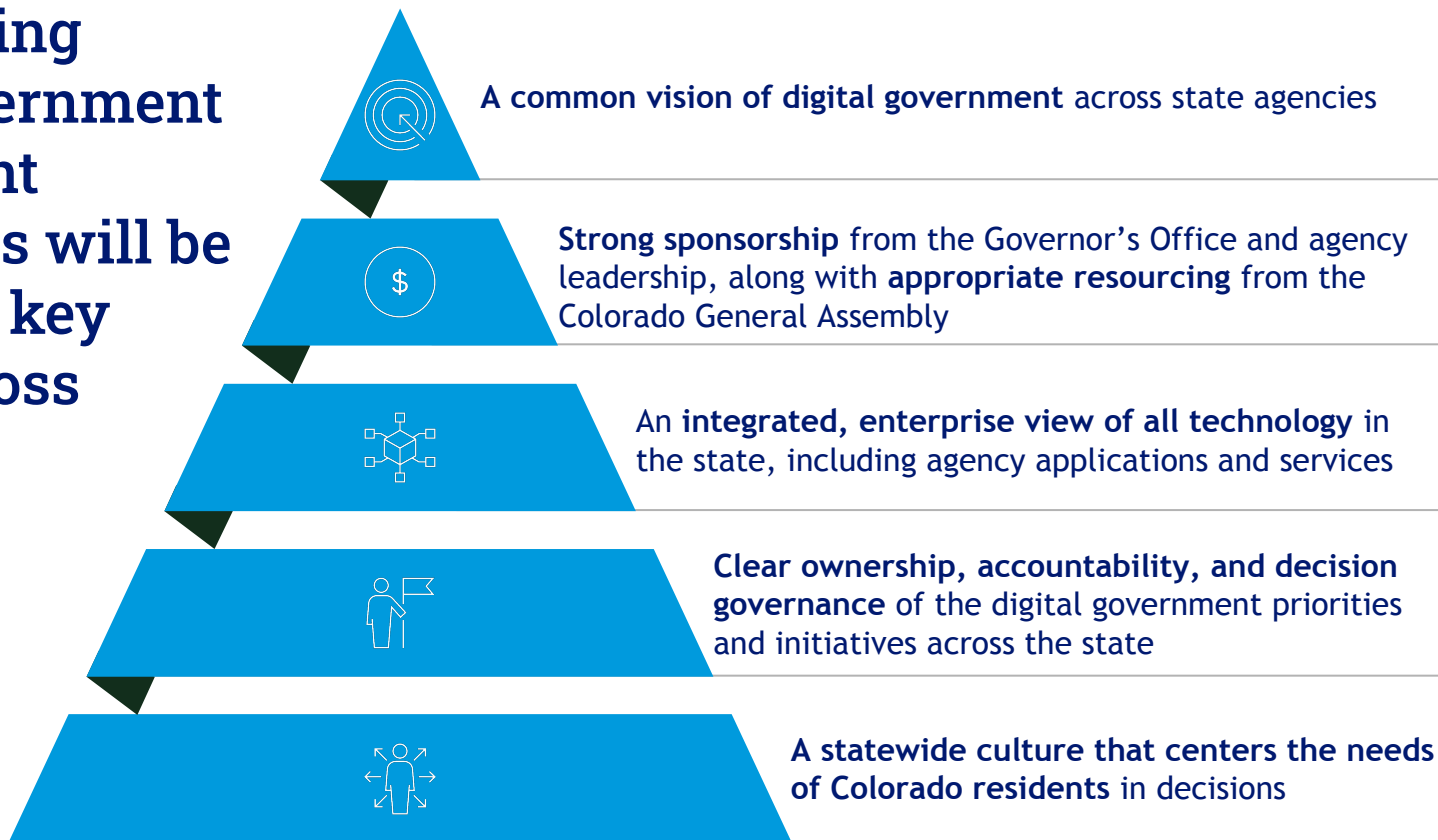
6 Bring best-in-class tools and technologies to how state agencies work

Prioritize modern and high-quality enterprise services that enable agencies to better perform job functions and securely serve customers

5 Cultivate analytics, business intelligence, and product leadership

Develop clear guidance for technology roles in OIT and technology-interfacing roles in agencies

Transforming digital government and resident experiences will be enabled by key factors across Colorado



myColorado - Making a Difference



Testimonial from a Case Manager for a domestic violence shelter in Grand Junction, Colorado

“Some of the community we support are people (who have been) kicked out of their houses by their abusers that have withheld their physical IDs. We provide them with smartphones, and the myColorado mobile app gives (our clients) the ability to access their Colorado Digital ID and helps them gain access to human services they need to get back on their feet.”



What is the vision for myColorado?

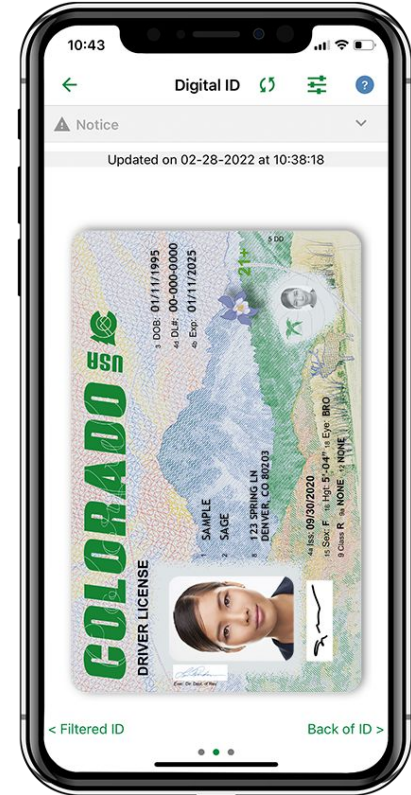
Empower people of Colorado to thrive through simple, secure interactions with digital government, at the moment they need it



myColorado - Major Milestone Achieved

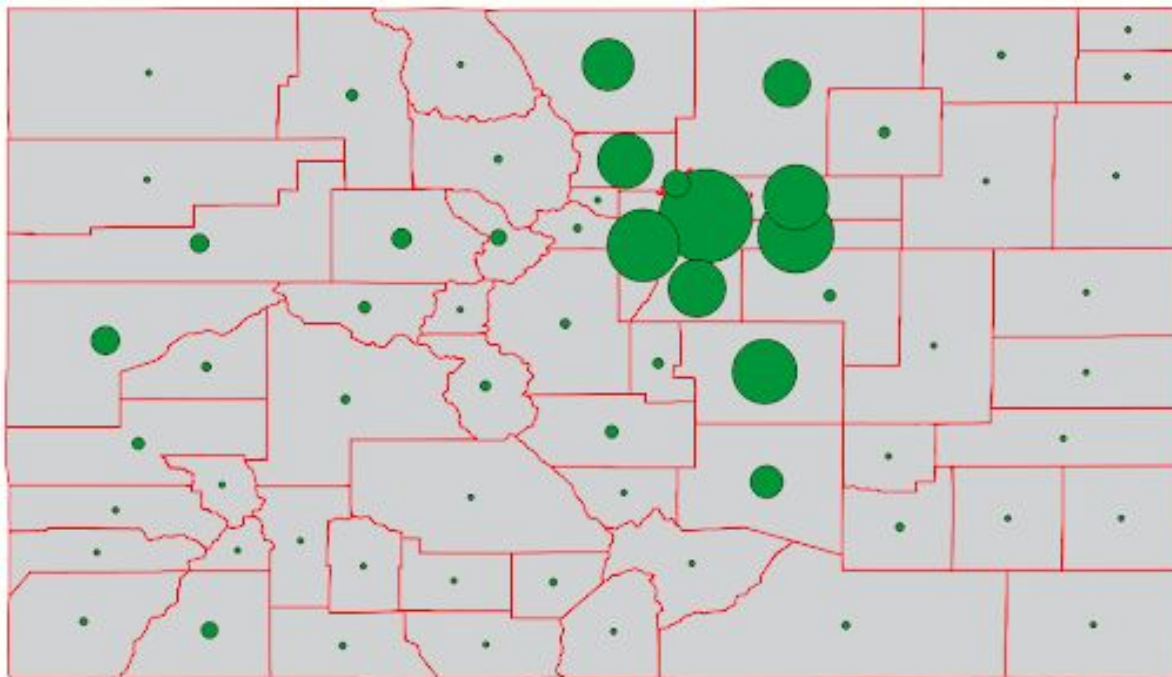
We achieved more than 1 million users!

- **1,016,904** Coloradans have created an account with the myColorado mobile app
- The Colorado Digital ID™ has been viewed more than **10,900,800** times since launch
- On average, the Digital ID was viewed **27,000** a day in the last six months

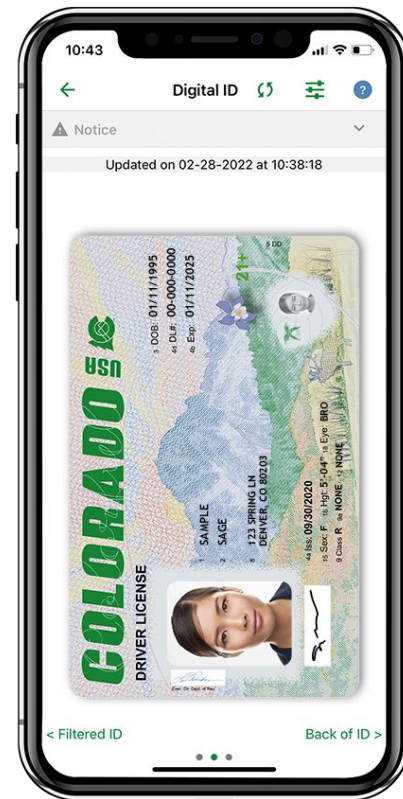




myColorado - Subscribers in every county!



*Circle size = numbers of subscribers





myColorado - Features by Agency Partner

1. CDPHE

- myVaccine Record (digital COVID-19 CDC card)
- Colorado SMART® Health Card
- Boosters + additional rows

2. CDPS/CSP

- Colorado Digital ID™ adoption
- QR code share of identification
- Law enforcement portal

3. DNR/CPW

- Digital fishing license

4. DOR/Tax

- Sales tax lookup, geolocation, real-time calculator

5. DOR/DMV



- Driver license renewal
- Vehicle registration
- Digital driving permit for minors
- Space Force and disability designation
- Colorado Digital ID redesign
- e-Title
- Affinity Icon

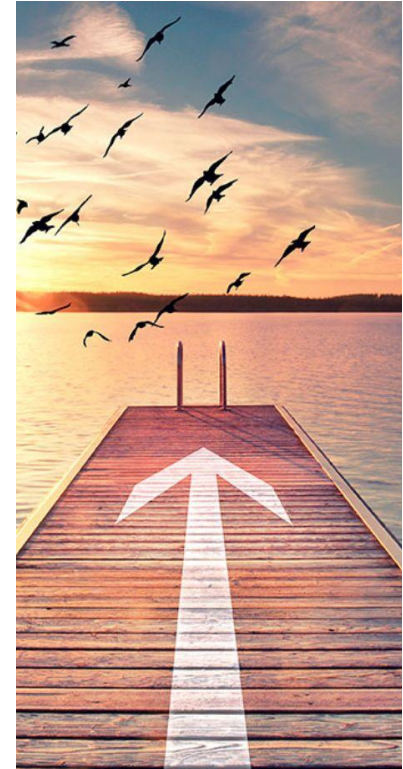
6. Well Power (Mental Health Center of Denver)

- Identity verification service



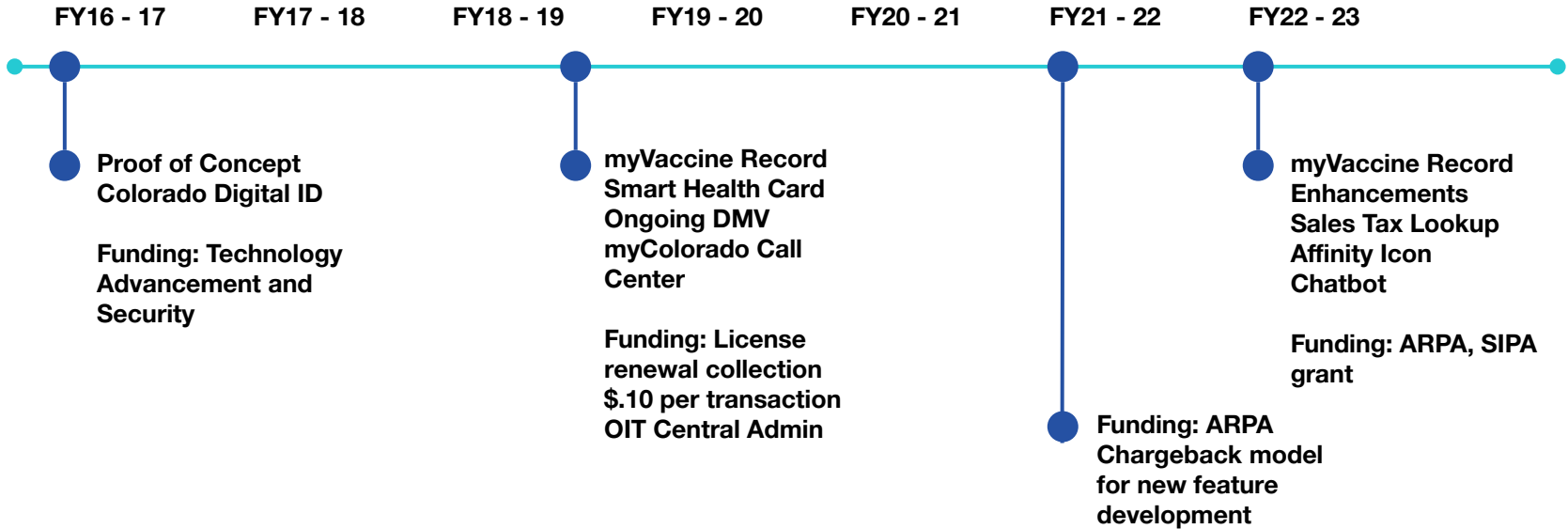
On the Horizon

- Pesticide license
- Chatbot
-  |  My Colorado Journey
- Stabilize funding model to continue to deliver value to constituents
 - Pay for use model
 - Platform operations, call center
- 18 staff currently support myColorado using ARPA and OIT funds





myColorado - Timeline





What are the office's budget requests for FY 2023-24?

Funding for **Strategic Initiatives and Critical Operations**

FY 2023-2024 Budget Package



Priority	Title	FTE	FY23 Amount	Funding Type	Alignment w/ Big 3
CC-IT 01	Modernizing Aging IT Systems Continued Investment	0	\$22,655,995	IT Capital Funding (One-time)	Tech Debt Remediation
R-01	Secure Colorado: Meet the Current & Future Threats	0	\$6,269,000	Reappropriated (Ongoing)	Tech Debt Remediation
R-02	myColorado™ Platform: Continued Support and Growth	18	\$4,510,981	Reappropriated (Ongoing)	Digital Government
R-03	IT Asset Management: Audit and Compliance	3	\$1,114,000	Reappropriated (Ongoing)	IT Transformation
R-04	Interagency Spending Authority	0	\$14,794,611	Reappropriated (Ongoing)	IT Transformation
R-05	Road to Data Driven Decisions	10	\$2,851,062	Reappropriated (Ongoing)	Digital Government



CC-IT 01 Modernizing Aging IT Systems Continued Investment

Requesting \$22,655,995

- Another round of investment in remediating technical debt and the associated risk it poses to the state

Project

- \$16.8M Security - Enterprise Identity
- \$2M IT Servicehub Phase 3
- \$3.7M 40% Carry over & cost increases from R-01 (last year) for Infrastructure and Network Buildout & Core Network Refresh





What you need to know about OIT Cybersecurity Operations?

OIT Cybersecurity Goals, Accomplishments, and Priorities



Cybersecurity



Highest impact to reduce security gaps

Tech

Review & invest in technologies that automate high-volume, low-complexity tasks

People

Create Tiger Teams to address vulnerabilities by level of urgency

Policy

Design & enforce criteria that applies to all applications, as well as governance to proactively support adherence.



CISO Goals for 2023

The CISO at OIT will be updating the Strategic Plan for Secure Colorado to address today's threat landscape. Considerations include:

- Automation
- Leveraging the tools that security uses to their full capacity
- Identifying and addressing skill-gaps and shortages in capacity on teams
- Identifying budgetary requirements to facilitate overcoming any identified gaps

The focus areas for CISO over this next year are:

- Strategy
- Governance
- Planning
- Threat Intelligence
- Incident Response
- Forensics
- Cyber Threat and Preparedness



Cybersecurity Accomplishments for 2022

- Deploying an automation platform to significantly reduce response times by automating the responses of the team.
- Combined partnership between key teams in OIT and customers particularly in terms of audit. This allowing us to:
 - effectively track, plan and execute on items of concern remediation activities
 - assist those we support in addressing vulnerabilities or risks
- Significantly redeveloped cybersecurity policy to better align with industry wide best practice



Priorities: How General Assembly can help

- Focus dollars and system replacements on secure architecture and enterprise platforms - avoids tech debt in the first place
- Provide funding to migrate legacy systems to secure, standard solutions - mitigates current vulnerabilities
- Support R-01 Secure Colorado - meet the current & future threats
- Allow us to provide an “Executive Session” in a future JTC hearing to discuss the cybersecurity landscape for state government in greater detail



What are the office's current legislative efforts and agenda ?

Legislative Implementation



HB21-1111 Consent Collection Personal Information

Legislation Overview:

- Created an Advisory Group to study where personally identifiable information is stored by state agencies throughout Colorado
- Identify entities that have access to personally identifiable information stored by state agencies
- Determine the costs and processes necessary to centralize the storage and protection of personally identifiable information
- Report to be completed and presented to the Joint Technology Committee
- Personally identifiable information means information that may be used, along or in conjunction with any other information, to identify a specific individual

- OIT Chief Data Officer leads group
- Many members and agency representatives are also members of the Government Data Advisory Board (GDAB)

- Report will identify risk & rewards of different data strategies
- Report will provide high level options on architecture and estimate costs
- Report identifies Data inventory maturing moving forward



Legislative Implementation & Agenda

- **OIT “North Star” Legislation**
 - HB21-1236 State Information Technology
 - SB22-191 Procurement Of Information Technology Resources
- **Other high priority work**
 - HB21-1110 Colorado Laws For Persons With Disabilities
 - HB22-1353 Public Safety Communications Transfer
 - SB22-113 Artificial Intelligence Facial Recognition
 - HB22-1306 Broadband Deployment Board Grant Processes
- **Broadband Legislation**
 - Addressing SB05-152



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Questions



Connecting the Dots Between OIT's "Big Three" Initiatives

