FY2021 Playbook The Future is Ours!



COLORADO

Governor's Office of Information Technology

Serving people serving Colorado

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GOVERNOR POLIS' DIRECTION

Be Bold **Be Consistent No Unforced Errors** Be Joyous

GOVERNOR POLIS' VISION

The Bold Four



COLORADO Governor's Office of Information Technology

44

Serving people serving Colorado





Renewables

Set Colorado on a path to 100% renewable energy by 2040







Workforce Implement free full-day kindergarten for all and expand preschool

MESSAGE FROM THE STATE CIO & EXECUTIVE DIRECTOR

Team,

It has been an honor working alongside you - the nearly 1,000 Governor's Office of Information Technology (OIT) employees - as we passionately pursued and achieved countless feats throughout the 2019-20 fiscal year. We continued our journey together with a steadfast focus on customer delight, all while keeping systems operating and information flowing, securely.

With a focus on improving OIT's organizational efficiency, transparency, and customer satisfaction, we measured satisfaction using the Net Promoter Score (NPS) and established a plan for each agency to further increase it. We worked with our agency partners to increase accountability and ownership of major IT systems. A prime example is the Sales and Use Tax Simplification (SUTS) system which was delivered ahead of schedule and under budget. In total, we delivered 134 projects with 95% on scope, on time, and on budget. We formed a Customer User Group, listened to our customers, and worked to establish a real-time billing approach and clarify best practices. We reduced

contract issues, improved business processes, and further embraced agile methodologies.

And we didn't stop there. In the spirit of Serving People Serving Colorado, we enhanced our security controls, advocated for rural broadband expansion, improved the accessibility of state systems, and modernized outdated legacy applications. In line with our core value of innovation, we also released the groundbreaking Colorado Digital ID[™], increased virtual access to government services, implemented Chatbots and other emerging technologies, and much more!

Fast forward to March 2020, when the unimaginable happened. The novel coronavirus outbreak reached Colorado. During this unprecedented time, OIT quickly formed a task force in preparation for what might soon occur: a stayat-home order and extraordinary demand on critical state applications such as the CDPHE testing lab systems and CDLE Unemployment Insurance.

When Governor Polis issued the COVID-19 emergency declaration, OIT was already taking the



necessary steps to support a remote workforce and the state's emergency operations efforts. We quickly responded to evolving needs as the situation changed day-by-day.

These are but a few examples of the many ways that together we enhance the lives of ALL Coloradans. Looking back, I am so proud of all that we have accomplished and cannot wait to create our future in the coming fiscal year and beyond.

Team, the future is ours. Together, let's reimagine IT in state government.

Let your light shine,

Theresa brygerek

To all of our stakeholders - employees, agency customers, Governor's Office, Colorado General Assembly, vendors, members of the press, and Coloradans - I introduce to you the OIT Playbook: a look at where we have been and where we are going.



As the enterprise provider of information technology (IT), OIT integrates and coordinates technology solutions for the State of Colorado's executive branch agencies so that they can fulfill their unique missions and provide essential services for Coloradans.

New this year, the OIT Playbook incorporates three publications into one:

• The OIT Playbook, our time-based strategic and operational roadmap that defines the specific key initiatives and goals that we want to accomplish during the course of the fiscal year. The Playbook provides stakeholders (customers, employees, partners, legislators, and ultimately all Coloradans) important information related to our future - where we aim to be and how we will get there - while linking our core mission, vision, values, strategies, and goals to the Governor's vision.



- **Performance Plans** are required of all state agencies by the Office of Planning and Budgeting (OSPB) to summarize near-term strategic and operational priorities. OIT's Performance Plan connects organizational objectives for achieving our priorities and contains details about our delivery of goods and services to customers - the executive branch agencies and residents of Colorado.
- **OIT's Annual Report**, which is a look back at OIT's approach to managing and transforming IT in the State of Colorado, our key initiatives, and a financial review for the last fiscal year in accordance with C.R.S. 24-37.5-106(a).

OIT presents this Playbook to align all of our stakeholders with our important work.

¹ OIT's responsibilities are vast and codified in C.R.S. 24-37.5-101, et seq. As the enterprise provider of information technology to Colorado's executive branch agencies, we develop and support enterprise and agency-specific applications; manage the state's IT infrastructure (e.g., the Colorado State Network, Public Safety Communications Network, data centers, cloud storage, etc.). OIT is also responsible, through our Office of Information Security, for information security governance across the executive and legislative branches of state government.

ABOUT OIT

Our History

The Governor's Office of Innovation and Technology was created in 1999, and renamed Governor's Office of Information Technology in July 2006, to serve as an advisory organization. At that time, executive branch agencies independently managed their own IT services and support, resulting in disparate infrastructures, inconsistent hardware and software standards, duplicative services, increased security risks, failing projects, and the inability to leverage statewide procurement opportunities. The overwhelmingly bipartisan passage of Senate Bill 08-155 ("the consolidation bill") shifted how IT services would be delivered to Colorado's executive branch state agencies. In July 2008, IT functions, systems, personnel, and assets were consolidated into a single entity - the Governor's Office of Information Technology. In many ways, the consolidation was much like a merger of 17 diverse companies, bringing with it significant challenges but also providing an extraordinary opportunity to plan, enable, and implement lasting change for the State of Colorado. This historic move challenged the status quo and created an enterprise IT organization that is leaner and more effective in delivering technology solutions and services.

Mission Together we enhance the lives of all Coloradans.

Vision

Be the best public service technology organization innovating today for tomorrow.

Core Values

Our core values guide us in how we interact with one another and our customers. At OIT, we incorporate these values into our work every day.



Service

We provide value and strive to delight. We seek to understand the needs of our fellow team members, partners, customers, and Coloradans, and then exceed their expectations. We are committed to serving people serving Colorado.



Integrity

We do the right thing in the right way. We communicate with openness, honesty, and authenticity and are accountable for our actions. We deliver on our promises and adhere to an ethical code. We are good citizens in the communities in which we live and work.



Teamwork

We work together toward a common purpose, having fun along the way. We foster a collaborative, creative, and inclusive culture. We create an empowering environment where everyone can contribute and reach their full potential.



Respect

Our people matter. We value, encourage, reward, and recognize them. We choose to be positive and create meaningful connections every day. We are considerate, helpful, kind, and patient in all situations.



Innovation

We foster new ideas. We challenge the status quo and continously ask, "How can we do this better?" Then we take action and make a difference through novel processes and technology.



Courage

We boldly take action on our convictions. We have the moral strength to venture, persevere, and withstand difficulty. We are entrepreneurial and embrace change to better ourselves and the people we serve.

WHO WE ARE

Customer Delight

Our Wildly Important Passionate Purpose is customer delight - surprising a customer by exceeding his or her expectations and thus creating a positive, joyous reaction. We strive to delight customers, strategic partners, and all stakeholders, including employees, in their interactions with OIT. We ensure their needs are met in a timely, cost-effective manner even as we keep systems, information, projects, and programs running smoothly and securely. We create partnerships with our agency customers to assist them in making the best technology decisions to support their business. We want to be easy to work with removing obstacles to create a low-effort customer experience and minimizing confusion to ensure mutual understanding. We seek to streamline processes to meet customer needs guickly and efficiently and improve transparency of our operations and billing.

Pursuit of Passionate Purpose

With the mission of enhancing the lives of ALL Coloradans, our work at OIT is significant and meaningful. We strive, on an ongoing basis, to follow this proven, iterative four-stage process: 1) find our passions, 2) align them with a worthwhile purpose, 3) persistently pursue it, and 4) assess progress. Along the way we apply six success strategies, such as the Persistence Strategy: mindfully persevere with focused determination toward the goal using a "divide and conquer" approach. The result of a pursuit of passionate purpose is meaning, satisfaction, and real rewards. We seek to Be a Sunflower. Effective Passionate Pursuers strengthen their SUNFLOWER traits. We, at OIT, work with our stakeholders using these traits: Self-confidence and esteem, Unwavering curiosity, Never quit, Fervor, Live the Pursuit of Passionate Purpose formula, Optimism, Wholeness, Energy, and Regeneration.





- Empower nearly 1,000 employees in 69 locations
 Serve more than 30,000 state employees in 1,300
- Support more than **1,100** applications

locations across Colorado

- Manage approximately 300 inflight IT projects at any given time
- Resolve **336,000** Service
 Desk tickets annually
- Detect and deflect 8.4 million security events daily

FUNCTIONAL STRUCTURE AND TEAMS

CHIEF INFORMATION OFFICER & EXECUTIVE DIRECTOR

At OIT, we work side-by-side with our customers in 69 locations throughout Colorado; and some of our employees are even found on top of mountains supporting the Public Safety Communications Network and Digital Trunked Radio System. Our teams work normal business hours, after hours, weekends, and holidays in support of our customers.



Customer Office

The Customer Office (CCO) is the front door into OIT through the IT Directors, Customer Engagement, and Service Desk teams. As the primary liaisons between OIT and agencies, IT Directors drive customer delight and work in partnership to deliver agency-specific 5-Year IT Roadmaps, Service Level Commitments, and OneView dashboards, to manage the relationship, and to ensure customer success. The Customer Engagement team is responsible for project intake, services engagement, and ensuring that OIT delivers as a unified service provider. The team includes project and IT portfolio managers who collaborate with customers and the rest of OIT on delivering solutions that enable agencies to provide services to Colorado's residents, businesses, and visitors. Through the Service Desk, the CCO provides technical support to state employees and county customers via telephone, email, or the Customer Portal. Through consistent and repeatable processes, the team strives for first-call resolution and customer satisfaction.

CUSTOMER OFFICE

- Customer
 Relationship
 Management
- Major Incident Management & Prevention
- Project Delivery
- Service Desk
- Services Engagement

OFFICE OF INFORMATION SECURITY

- Identity & Access Management
- Risk & Compliance
- Security Governance & Policy
- Security
 Architecture
- Threat Detection & Prevention

OPERATIONS OFFICE

Finance

- FinanceHuman Resources
- Legislative Liaison
- Policy Advisor
- ExcellenceIT Transformation

STRATEGY OFFICE

Communications

Marketing and

Planning

Strategy and

Operational

Colorado Broadband Office

Created through Executive Order, the Colorado Broadband Office (CBO) is working to ensure that internet access is available to all residents regardless of zip code. The CBO provides tools for Coloradans to find local providers as well as check their internet speed. The CBO has five efforts: 1) a Business Development program that works with local stakeholders (public and private) to determine potential business models that deploy infrastructure in rural and tribal communities; 2) a Data Mapping and Analysis effort to ensure the state has the most accurate data available regarding broadband coverage; 3) the Education Initiative to work with school districts to leverage federal funding for broadband access; 4) a Federal Programs effort to evaluate all available federal funding opportunities and ensure stakeholders are able to access these programs; and 5) a Healthcare Initiative to partner with other state agencies and stakeholders around the state to support telehealth deployment.



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COLORADO DIGITAL SERVICE

COLORADO BROADBAND OFFICE

- Business
 Development
- Data Mapping & Analysis
- Education Initiative
- Federal Programs
- Healthcare Initiative

TECHNOLOGY OFFICE

- Customer & Enterprise Applications
- CBMS
- Digital Transformation
- Data & GIS Office
- Enterprise
 Architecture
- Infrastructure
 Operations
- Public Safety Communications Network

Colorado Digital Service

In October 2019, the Colorado Digital Service (CDS) was launched as a new team of senior software engineers, user experience designers, and product managers. Based on the United States Digital Service model, CDS experts serve a "digital tour of service" to enhance the delivery of government services using agile methodologies, user-centered design, and innovative delivery processes. The teams are deployed where support is quickly needed. For example, the team has worked on projects such as Trails, Colorado Benefits Management System (CBMS), Division of Criminal Justice Grants Management, COVID-19, and the Colorado Financial Management System (CFMS). CDS has conducted discovery sprints, guided product roadmaps, and provided advice on procurement modernization as well as agile software delivery, API design, and more.

Technology Office

The Technology Office (CTO) ensures a strong infrastructure, which includes our data centers, cloud migration and operations, state network, database services, and more. They also manage the Public Safety Communications Network, which allows direct communications between state, local, federal, and tribal agencies across the state. Nearly 120 deskside services support personnel are co-located with agency customers to provision devices and troubleshoot and resolve problems. The CTO helps consult, design, build, and support the applications our agency customers rely on to serve the public or their employees. The data and GIS teams provide the enterprise strategy and work to promote the sharing and accessibility of state public data. OIT's enterprise architecture team is tasked with defining statewide technology standards, including accessibility. The CTO is also home to our digital transformation team, which works to incubate new technologies that can deliver an attractive ROI and move government services to be virtually accessible anywhere, anytime.







Office of Information Security

Created by statute, the Office of Information Security (OIS) protects, defends, and deflects the State of Colorado from cybersecurity risks. To ensure a Secure Colorado and help safeguard state systems and the data entrusted to us, this team develops statewide information security policies, standards, and guidelines, and directs security audits and assessments in state agencies. The OIS also provides information awareness and training programs to help state employees understand their role in securing state assets. This team is also responsible for the provisioning and management of identity accounts and groups throughout the agencies to ensure that only authorized users have access to state systems.

Operations Office

The Operations Office (COO) manages OIT's financial services, legislative affairs, and human resources. In addition to managing the acquisition of goods and vendor services for OIT, our Financial Services team is statutorily responsible for purchasing, contracting, and managing vendor performance and contract compliance of information technology for Colorado's executive branch agencies. Among other responsibilities, our Legislative Liaison, who also dotted line reports to the Governor's Office, develops OIT's legislative policy agenda in close partnership with the Executive Staff and tracks legislative actions that affect OIT finances or services. The Human Resources (HR) team, in partnership with management at all levels, fosters a culture for the encouragement and celebration of exceptional performance and continuous improvement, strives to build teamwork, and supports balancing work and personal life, thereby allowing employees to take pride in delivering critical services that impact our entire state. In addition, the HR team facilitates our Equity, Diversity, and Inclusion (EDI) efforts to ensure all employees have a voice and are heard.

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Strategy Office

The Strategy Office (CSO) has a number of major areas of accountability. The Communications team raises awareness, interest, desire, and action through effective internal and external marketing and communications to elevate the OIT brand, building credibility and trust in our people, products, programs, and services. The Strategy & Performance team helps create, drive, and manage OIT's overall strategy and goals. This team also seeks areas for process improvement, troubleshoots vendor-related issues, and monitors vendor performance standards. Additionally, Business Architecture and Product Management teams are being organized within the CSO. The Strategy Office is also taking the lead on establishing a program to drive Governor Polis' vision for IT Transformation, for key areas of COVID coordination with the Innovation Response Team, and for planning OITs "new normal" operations.

OUR CUSTOMERS

OIT is the enterprise provider of information technology and communications services for the executive branch agencies. Ultimately, OIT serves all Coloradans.

Agency Customers

also known as Consolidated Agencies

- CDA Colorado Department of Agriculture
- CDHS Colorado Department of Human Services
- CDLE Colorado Department of Labor and Employment
- CDOT Colorado Department of Transportation
- CDPHE Colorado Department of Public Health and Environment
- CDPS Colorado Department of Public Safety
- DMVA Department of Military & Veterans Affairs
- DNR Department of Natural Resources
- DOC Department of Corrections
- DOLA Department of Local Affairs
- DOR Department of Revenue
- DORA Department of Regulatory Agencies
- DPA Department of Personnel & Administration
- GOV All Offices of the Governor, which include the Colorado Energy Office (CEO), Office of State Planning & Budgeting (OSPB), Office of Economic Development & International Trade (OEDIT), and Office of Information Technology
- HC History Colorado
- HCPF Health Care Policy & Financing

Broadband Customers

OIT helps local communities to identify their broadband resources, needs, and gaps, and works with them to find solutions.



Public Safety Communications Network Customers

OIT maintains the Public Safety Communications Network, including the Digital Trunked Radio System (DTRS). The more than 1,000 state, local, county, federal, and tribal agencies using the network are also our customers.

Statewide Security Customers

The Office of Information Security and the Chief Information Security Officer publishes policies and standards that are applicable to all state agencies in the executive and judicial branches. A breadth of security services are provided to consolidated agencies in the executive branch. Institutions of Higher Education and the Colorado General Assembly are excluded by statute.

County Customers

OIT provides varied services to 30,000 county employees in all 64 of Colorado's counties, including identity provisioning for state systems, technical support for the Colorado Benefits Management System (CBMS), Colorado PEAK®, Child Care Automated Tracking System (CHATS), and the Trails child welfare system; and assistance with computer refreshes.



SERVE

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The benefits of technology and innovation have never been more visible than during the COVID-19 pandemic. In the first week of March 2020, OIT established a cross-functional task force to undertake two roles: 1) support a widespread remote workforce while keeping systems operating (KSO) and information flowing securely and 2) innovate to prevent, stop spread, and recover. This endeavor meant forging enhancements to existing solutions and introducing an array of new solutions at an unprecedented rate.

Telecommuting

OIT services enabled and supported the majority of employees in nearly every executive branch agency² to begin working from home in mid-March, as directed by Governor Polis. While ensuring sufficient data and voice capacity and secure access to support the increased load, OIT created a Tech Kit: Guidelines & Resources for Remote Workers to provide requirements, guidance, and best practices to help employees work safely and securely online. The kit includes equipment recommendations, home security tips, Acceptable Use Policy reminders, guidelines for using personal devices, tools for video and/or audio conferencing, password self-service, and more. While telecommuting rates vary by agency, OIT has seen 95% of our employees successfully working remotely.

Websites

OIT's work was not limited to supporting just state employees; we worked in collaboration with other agencies to ensure that Coloradans had access to the resources they needed to navigate this new reality. We quickly stood up new websites in partnership with the Statewide Internet Portal Authority (SIPA) and ensured that every state agency's website included a banner with a direct link to the Colorado COVID-19 website. Our accessibility team worked with the Governor's Innovation Response Team (IRT) and the Colorado Department of Public Health & Environment (CDPHE) to improve website accessibility and publish accessible materials for blind and low vision screen reader users, including COVID-19 visual maps.

Major IT applications are in great demand

Examples include the Unemployment Insurance (UI) systems and the Colorado Benefits Management System (CBMS), the system that powers Colorado PEAK and provides food, cash, and medical assistance to those in need. Residents who have lost their job are applying for benefits at an all-time record rate. IT systems like these were seeing a tenfold or more increase in the maximum load they were designed to support. With the new Pandemic Unemployment Emergency Assistance program and the Coronavirus Aid, Relief, and Economic Security (CARES) Act, OIT worked with the agencies to quickly upgrade systems, which then processed millions of dollars' worth of claims in less than a week after go-live. Upgrades were also guickly made to CBMS, which has seen an increase in benefits applications, to address new federal requirements. The CDPHE lab systems were overwhelmed with increasing test results and OIT crews worked weekends to harden and expand capacity. IT Directors are on the lookout with agency partners for which systems will see the next peak demand.

² A few agencies, such as the Departments of Corrections, Human Services, and Public Safety, have a high percentage of employees who must report to their work locations.



36 NEW SOLUTIONS IMPLEMENTED **33** ENHANCEMENTS TO EXISTING SOLUTIONS

EXPANDED **Unemployment** Insurance claims system capacity to support

48K vs. 1.7K AVG. CLAIMS PER WEEK DURING COVID

AVG. CLAIMS PER WEEK IN JAN/FEB 2020 oOUL



LAPTOPS PURCHASED & DEPLOYED TO STATE EMPLOYEES

Additional 3,000 procured by CDHS for offices and counties across the state

134% in virtual monthly meetings during COVID-19

DocuSign adoption during COVID-19

grew **21%**, increasing remote usage of forms and workflow processing

78% AVERAGE HOLD TIME OIT Task Force: Keeping Colorado operational during a crisis

95%

92%



EXPANDED mvColorado[™] app

includina **6** new features θ 4 new services



10% in new users during COVID-19

SUPPORTED employees able to work remotely

OIT

EXECUTIVE BRANCH

OIT Workforce

98.0% have access to what they need at home.

99.5% have the guidance they need.

99.0% are able to effectively collaborate with their teams.



BUILT the Colorado **Community COVID** Symptom Tracker in collaboration with the Innovation Response



1,600 COLORADANS HAVE USED THE TRACKER

 ~ 50 New Users added daily

Service Desk After a huge spike in remote service support, OIT improved processes and realigned staff to enable a significant drop in the average hold time between March and May.

Stood up 5 Google Voice pilots & 3 Amazon Connect Virtual Call Centers





Employee and agency support

In addition to adding new support documents on TechU, OIT released a weekly Service Desk Bulletin to customers and employees with helpful technology tips and tricks, including how to detect and avoid COVID-related scams. Our IT Directors conducted readiness studies that resulted in the purchase of an additional 1,800 laptops - no small feat given the nationwide competition for this resource. In addition to ensuring the state network could meet the resource demand for a remote workforce, our network and telecommunications team supported the Governor's video conferencing needs for regular updates to Coloradans and the press.

Virtual connections

Using audio, web, and video conferencing, we're staying connected virtually. Internal organizational chats, texts, emails, and plain old phone calls are other tools replacing in-person conversations. And to be joyous and keep a sense of team spirit even though we are apart, we have theme days where we wear hats, cool sunglasses, or school colors for example.

Innovation

In very short order, OIT partnered with CDPHE, the IRT, and county public health representatives to implement the Colorado COVID-19 Community Symptom Tracker (CCCST). This application allows CDPHE to track symptoms across the state and local public health agencies to understand when outbreaks occur in given locations. It also offers Coloradans the opportunity to receive text messages with information about managing their symptoms, access telehealth services, and more. In addition to Do You Have Symptoms?, other innovative solutions are in the exploratory requirementsgathering and solutioning stage.

myColorado

On March 27, just two days after the Stay-at-Home order was issued, OIT announced new features in the myColorado mobile app to support Colorado's COVID-19 response. The new features included real-time notifications and access to COVID-19 information, 17 additional Division of Motor Vehicles (DMV) services (e.g., driver license and state IT renewal enhancements, driver license verification, etc.), and State of Colorado job opportunities. On April 20, even more enhancements were added to help Coloradans stay current on COVID-19 information and access food, cash, medical, and early childhood assistance on the Colorado PEAK® website, along with many other capabilities such as access to United Way 2-1-1, School Free Lunch Sites Map, and the "Do You Have Symptoms?" tracker.



OIT COVID-19 response efforts featured in... THE WALL STREET JOURNAL.

Public-Sector Tech Faces Crush of Coronavirus-Linked Demands by Angus Loten Published April 13, 2020

Theresa Szczurek, Colorado's chief information officer, said she is focused on two overlapping goals. The first is to keep the state's IT systems operational, especially given a spike in online demand for unemployment benefits and public-health services. On top of that, nearly all of the state's public-sector employees are working from home, adding a heavy load on its software apps and infrastructure, she said.

Beyond efforts to keep the proverbial lights on, Ms. Szczurek said her team is pursuing innovative ways to apply technology in efforts to combat the virus. That includes building a virtual call center from scratch to quickly respond to residents' questions about the outbreak, an initiative that the team completed in less than two weeks, she said.

a state spokesperson said.



³ Alternate Care Sites are facilities that will be used for care for COVID-19 positive patients who do not need, or no longer need, hospitalization but need to be isolated as they recover.

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Launched in early March, the automated system received and processed nearly 8,000 calls as of April 1, up from a few dozen calls a day to the state's Disease Control and Public Health Response line before the crisis,

Hotlines

In less than one week, we developed a virtual call center for CDPHE's CO HELP to support the massive influx of calls regarding COVID-19. We also deployed three new virtual call centers, one each for Colorado Parks & Wildlife, the Colorado Department of Labor and Employment (CDLE), and the Office of Economic Development & International Trade (OEDIT).

Alternate Care Sites

Additionally, OIT worked in partnership with CDPHE, the Colorado Department of Human Services (CDHS), the Department of Personnel & Administration (DPA), and the National Guard to assess the IT needs at Alternate Care Sites across the state, equip them to address telecom and data needs, and ensure sufficient ongoing support.

All of this and more was accomplished, and as the COVID-19 pandemic changes over time, OIT has established a fast project intake process and is ready to quickly respond. Information technology is critical for supporting the new way state employees are working and serving Coloradans.

Statewide IT Transformation. Reimaging IT.

The role of IT transformation in state government has become a focus of greater attention over the past few decades. This is mainly due to everchanging technology needs and budget crises demanding that we do more with less, and increasing cyber risks. Many states are facing serious challenges realizing the benefits of technological innovations and Colorado is no different. A state IT ecosystem consists of a complex set of interactions formed by the people, processes, and technologies that empower and support the business mission. An effective IT organization has efficient systems and structures in each layer of the operating model (see figure at right).

To move to a more effective model, the Governor outlined a vision for more agency-led IT whereby agencies own and are accountable for IT business outcomes with OIT support/partnership and enterprise-wide IT whereby OIT manages core IT in a centralized manner (e.g., cybersecurity, IT standards, architecture, infrastructure, network, email, and deskside as well as customer experience of e-government service) which agencies utilize. The vision also includes collaborative governance and oversight of IT and a more nimble and process-oriented IT organization. This vision drove the state to pursue a programmatic investment in change; this program is known as the IT Transformation Program and is an opportunity to Reimagine IT in state government.

ReimagineIT



From January to December 2019, OIT conducted analyses of the state's current IT operations and environment. These efforts identified gaps in the state's service delivery environment relative to industry leading practices. Findings included the need to establish a new business model that will support more customer-focused service delivery - especially for major IT projects, increase IT resource sharing, align IT priorities with business needs, and improve OIT business processes.

OIT received input from agency participants, business leaders, and IT leaders to inform the identification of IT transformation needs and plans. Planning identified needed improvements to efficiency, transparency, and customer satisfaction. Work began with our agency partners to transform the culture and the way we conduct business. See these examples of progress to date toward the future state vision:

- IT Leadership and Governance: A structure that supports collaborative IT oversight, strategic direction, and coordinated budgeting. (The statewide IT Steering Committee was formed and its charter created to clarify roles and responsibilities.)
- IT Talent: An organization model oriented towards increased alignment with agency business needs supported by strategies for talent growth, retention, and attractions. (Restructured OIT's organization and hired new executives, launched the Colorado Digital Service, and began to establish consistent agency teams.)
- IT Financial Management: Increase financial transparency to support improved agency financial planning, increased oversight of vendors, and more streamlined processes for IT procurement. (Began building financial transparency with real-time



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billing, IT rate study, and review of asset ownership along with steps to improve the procurement/ contracting processes.)

- Technology: Improve use of modern technologies to support online and digital government along with defined services and coordination with customers. (Launched an incubator with dozens of new technology pilots and myColorado; supported transition of state employees to work remotely and catalyzed digital transformation.)
- Security: Maintain a robust security organization supported by a culture of compliance in partnership with agencies. (Focused on securing IT operations and completed agency security assessments.)
- Service Excellence: Foundational support to enable IT to function effectively through defined processes and a service catalog. (Established a Customer User Group, conducted the Net Promoter Score Survey [NPS], and drafted agency plans to improve NPS.)

The state expects IT Transformation to be a 24-month long program. Expected outcomes in each of these areas include Customer Satisfaction, Transparency, and Efficiency (see figure below).

FY 2020-21 WILDLY IMPORTANT **GOALS (WIGs)**

Transform the delivery of IT in the state.

WIG 1

Ensure a Secure Colorado by evaluating and improving

WIG 2

statewide cybersecurity practices.

WIG 3

Expand virtual access to government services anytime and anywhere.

WIG 1

Transform the delivery of IT in the state.

Measured by 50% implementation of IT Transformation plan resulting in efficiency, transparency, and customer satisfaction by June 30, 2021.

Three Year Goal

Lead IT Transformation for the state. Measured by implementing 98% of the plan and seeking additional opportunities to enhance efficiency, transparency, and customer satisfaction by June 30, 2023.

Context

Over the past two decades, the role of information technology in transforming state government has become a focus of greater attention due to budget crises, increasing demands to do more with less, cybersecurity pressures, and ever-changing technology needs identified by agency business partners and state residents. Many states, including the State of Colorado, are facing serious challenges realizing the benefits of technological innovation. A state IT ecosystem consists of a complex set of interactions formed by the people, processes, and technologies that empower and support the state's mission.

2. Customer Satisfaction 2021. 2021. 3. Transparency

Methodology

All executive branch agencies, including OIT, utilize The 4 Disciplines of Execution (4DX) methodology. This framework focuses on identifying Wildly Important Goals to move the organization forward in alignment with Governor Polis' direction. Based on valuable feedback provided by our employees at roadshows held around the state, we use scoreboards and dashboards, including the Governor's Dashboard, to track our progress.

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Monthly Lead Measures

1. Efficiency

Invest in structured improvement of OIT processes.

A. 50% of IT Service Management process improvements launched by June 30, 2021.

B. Reduce the OIT review and approval time on executive branch IT contracts by 25% from 20 days to 15 days by June 30, 2021.

C. 30% of OIT workforce with established and completed training plans in the Learning Management System based on skills assessed against industry standard competencies by June 30, 2021.

Additional Strategies

Expand agency accountability and ownership of IT.

A. Improve customer satisfaction as measured by increasing the Net Promoter Score from -3 to greater than zero (0) by June 30,

B. Increase the number of NASPO participating addendums and enterprise agreements available to agencies by 10% by June 30,

C. Continue to deliver 'project value and performance' regarding on time, on budget, on scope delivery at a 95% or greater level.

Increase the role and voice of agencies in statewide IT direction by establishing governance bodies.

A. Costs avoided through effective IT governance oversight and/ or amount of duplicate spending prevented by effective oversight (cost avoidance). Achieve cost savings/cost avoidance of \$1,000,000 by June 30, 2021. [This represents cost savings/ avoidance for FY21, not cumulative savings.]

B. 30% of IT projects are evaluated as part of an improved portfolio management process to manage risks, prioritization, and shared opportunities in the state by June 30, 2021.

WIG 2

Ensure a Secure Colorado by evaluating and improving statewide cybersecurity practices.

Measured by increasing the State of Colorado's security metric from 0 to 90 by June 30, 2021.

Three Year Goal

Ensure a Secure Colorado by evaluating and improving statewide cybersecurity practices. Measured by increasing the State of Colorado's security metric from 90 to 98 by June 30, 2023.

Context

OIT is responsible for the state's information security governance, architecture, risk and compliance, provisioning user access, overseeing day-to-day security operations, as well as monitoring and responding to security threats. We strive to preserve the confidentiality, integrity, and availability of state and citizen data.

Monthly Lead Measures

1. The internal security score will increase from 7% of agency servers meeting the minimum threshold to 75% by June 30, 2021.

Additional Strategies

- 2. Enhance statewide security plan by identifying strengths/vulnerabilities, making modifications, and recommending security controls to be implemented by June 30, 2021.
- 3. 60% of audit findings will be remediated by June 30, 2021. [This measure represents open audit findings as of July 1, 2020.]
- 4. Implement FY21 security projects by June 30, 2021.



WIG 3

Expand virtual access to government services anytime and anywhere.

Measured by diverting at least 25,000 inperson interactions to virtual services by June 30, 2021.

Three Year Goal

Expand virtual access to government services anytime and anywhere. Measured by diverting at least 75,000 in-person interactions to virtual services by June 30, 2023.

Context

In addition to keeping all the systems operating, information flowing, and applications advancing for executive branch agencies and the state, OIT is responsible for promoting a robust IT ecosystem throughout Colorado in collaboration with key stakeholders. This aggressive goal focuses on driving the citizen experience by advancing the state's adoption of emerging technology including, where appropriate, artificial intelligence, distributed ledger technology, machine learning, mobile accessibility, expanded self-service and virtual call center capabilities, multi-modal collaboration, and more. We also continue to focus on providing access to reliable broadband throughout the state including our rural communities. We strive to strengthen technology in the state through an advanced digital transformation program.

The Future is Ours!

As we move into the new normal of operations after the initial COVID-19 pandemic, information technology is essential to enable a reimagined work environment. We will continue to work with our agency partners to support the Governor's vision for continued telecommuting at a sustainable level, reduced or cycled onsite employee presence requiring less physical space, and more virtual government services with access for all Coloradans anywhere, anytime. OIT plays an important role to create the work place of the future, now!

🏽 🙋 😍 The Future is Ours!

Monthly Lead Measures

- 1. Divert at least 25,000 in-person interactions to virtual services by June 30, 2021.
- Establish the baseline for 'usefulness and ease-ofuse' of critical and essential application services (excluding commercial off-the-shelf software or COTS) and build a prioritized, modernization plan for its improvement by June 30, 2021.

Additional Strategies

- 3. Better deploy state broadband grant resources by obtaining accurate data from 5 of the top 15 broadband providers in the state by June 30, 2021.
- 4. Establish the Digital Transformation strategy and implement at least 10% of the strategy by June 30, 2021.

Multi-Year Program Highlights

Technology is changing the world around us at a blistering pace. From emerging technologies like blockchain to virtual access anytime and anywhere, every agency and service is undergoing transformation. Our role as a technology provider to the executive branch means understanding and navigating this environment to make government function better. OIT consults, designs, builds, and supports this evolution. OIT continues to improve how we deliver to our diverse customer group, seeking opportunities to streamline processes, lower costs, and enhance access to government services.



Colorado Benefits Management System Transformation

Colorado is leading the nation in the adoption of cloud services for integrated eligibility and enrollment systems. The Colorado Benefits Management System (CBMS) is the critical system that determines eligibility for vulnerable Coloradans who rely on food, medical, and cash assistance. Each day it processes than 7,000 eligibility more determinations and 6,000 benefits authorizations. In August 2019, OIT completed the three-phased CBMS Transformation Project to modernize the 15-year-old system by moving it from locally maintained servers to Amazon Web Services, a

secure, cloud-based platform, and launching significant enhancements with the goal of making the system easier to use. This robust, scalable system enables the state to be more responsive to county and client needs. As a result of this project, 7 million lines of codes were reduced to 700,000 and the county user screens were improved. We continue to implement enhancements, many of which were identified from visits to the counties, to improve productivity and quality. Other modifications are required federal compliance changes due to the COVID-19 crisis.

Continuous Improvement

OIT continues to evolve and improve how we deliver to our customers. Our continuous improvement strategy is designed to identify significant organizational improvements that will increase efficiency, automate processes, and monitor performance to help drive OIT-wide strategies. We will seek opportunities to streamline processes for effective outcomes that impact technology solutions associated with our overall strategies.



Broadband

Broadband infrastructure is a key enabler for 21st century economic, community, and personal growth. From enabling small businesses to sell their goods to the entire world, allowing customized and equitable education, to providing the delivery mechanism for new eHealth technology to serve rural populations, Colorado's ability to compete at a global scale depends on universal, affordable, and abundant broadband connectivity. It is with this in mind that the Colorado Broadband Office (CBO) was created. While the CBO has ownership for the statewide strategy and key initiatives, they work in partnership with the



safety organizations.

As part of OIT's continuous improvement efforts, we created the I.D.E.A. Center. This is a one-stop online site where our employees can submit their ideas for innovation, process improvement, and cost savings. No idea or improvement is too small! Ideas are reviewed by the Continuous Improvement team, which also provides progress updates to those who submit ideas. In FY21 we will be working on making submissions visible to all OIT employees so that they may collaborate on the idea.

10 The Future is Ours!

Department of Local Affairs (DOLA), Office of Economic Development & International Trade (OEDIT), Department of Regulatory Agencies (DORA), Colorado Department of Transportation (CDOT), and Colorado Department of Public Safety (CDPS) to achieve the overall statewide objectives. The CBO also collaborates with a number of local and regional governmental organizations, tribal communities, and multiple public

One of the CBO's primary goals is to ensure all Coloradans have access to reliable, cost-effective broadband internet that meets residential and

educational standards. In 2015, less than 60% of rural homes had access to basic broadband. Through their work, rural broadband coverage has steadily increased from 59% to 87% in the past five years, with 100% of all school districts achieving the current FCC connectivity standards. But more work remains, and the state is committed to modernizing Colorado's broadband infrastructure to expand internet access and help rural communities overcome economic challenges.



myColorado & the Colorado Digital ID™

On Oct. 30, 2019, the Colorado Digital ID[™] was launched as a new innovative feature in the myColorado Mobile App[™], the State of Colorado's official mobile app[™]. The Digital ID enables Coloradans to create an electronic version of their Colorado driver license or state identification (ID) card that can be displayed on smartphones for proof of identification, age, and address within Colorado. The Colorado Digital ID is a secure, visual representation unique of what has traditionally been the legally accepted official

physical format of a person's 50,000 identification. Nearly Coloradans have downloaded the app and created their Digital ID as of May 2020. Colorado is among the first states to offer an array of digital identification services that will allow residents to interact with government services and businesses in new virtual workflows. It will evolve over time as national standards are identified and adopted to allow for interstate usage and to make it compliant with federal REAL ID requirements.



myColorado is a collaborative project between the Governor's Office, Office of Information Technology, Department of Revenue, Division of Motor Vehicles, and Colorado Department of Public Safety. With the app, Coloradans can also renew their driver license, receive notifications about important state news, securely store personal and payment information, and easily search for online state services in

one place. Since the initial launch of myColorado with Digital ID, several new features have been added, including access to 17 additional online DMV services with the myDMV integration, Chat support, COVID-19 updates and helpful resources, access to Colorado PEAK®.

ADA enhancements, and the ability to search for state jobs.

New services will continue to be implemented incrementally and the platform will get smarter year- afteryear and move users toward oneclick transactions. As of May 2020, the app is experiencing an average of 125 new sign-ups per day.



Joint Agency Interoperability

Joint Agency Interoperability (JAI) is a partnership between Colorado Department of Health Care Policy & Financing (HCPF), Colorado Department of Human Services (CDHS), and OIT to share and integrate information stored in multiple IT systems across state agencies in order to improve access to and coordination of services for Coloradans. It seeks to improve people's lives by making the right information from state IT systems



Secure Colorado

Secure Colorado is the ongoing cybersecurity plan for the State of Colorado. The plan focuses on achieving quick and sustainable risk reduction at a reasonable cost, while promoting an environment of technology innovation, adoption of cloud-based the technologies, and the open sharing of data where appropriate. Secure

10 The Future is Ours!

available to the right person, at the right time, for the right reason. This involves a fundamental shift in how the state manages and integrates its data, and has already significantly advanced the state's strategy to improve data governance and integrations. Early accomplishments include initial data documentation and systematic data governance processes as well as connection of four major IT systems - based on OIT's enterprise service bus strategy - to provide the backend integration in support of county caseworker's unified view of a person across several programs including Medicaid (CBMS), child support (ACSES), child welfare (Trails), and child care assistance (CHATS). A proof of concept for such a view was developed leading to more detailed understanding of the legal issues involved in allowing a single view of a client across programs.

Colorado outlines the strategic goals and initiatives of the Colorado Information Security Program to safeguard the State of Colorado's information assets and to ensure the confidentiality, integrity, and availability of the information vital to the state's mission. The program documents the ongoing efforts, initiatives, current gaps, and plans for remediation to enable the ongoing successful implementation of Secure Colorado and allow for improved, more robust cybersecurity across the whole of state government. In line with this plan many important securing IT projects were launched this year with more to come in FY21.

FY 2019-20 YEAR IN REVIEW

FY20 Performance Evaluation

Here is how OIT was doing as of the end of FY20 (June 30, 2020) toward meeting its goals.

WIG1 On Track/Completed

Increase organizational efficiency, transparency, and customer satisfaction.

Establish a Net Promoter Score baseline to measure OIT customer service by December 31, 2019 and implement a plan to increase that baseline by June 30, 2020.

| WIG 1 STRATEGY | RESULTS as of Q4 FY20 |
|---|--------------------------|
| Strategy 1: Assess OIT's scope, capacity, and funding to improve efficiency, transparency, and customer satisfaction. Measured by creating a reform recommendation, obtaining buy-in from the IT Steering Committee and approved by the Governor, and taking action by June 30, 2020. | On Track/ Completed |
| Strategy 2: Improve OIT contracting by implementing a new agile contracting and procurement process resulting in a 'reduction of contract issues with vendors' by 5 percent by June 30, 2020. | Exceeded Goal |
| Strategy 3: Develop Strategic Workforce Alignment Plan by September 30, 2019. Fully implement plan by June 30, 2020. | On Track |
| Strategy 4: Establish a 'project value and performance' measure baseline addressing meeting customer schedule, business outcomes, and budget expectations, and move it from 88% to 91% by June 30, 2020. | Exceeded Goal |



Image: The Future is Ours!



of agencies have developed a Net **Promoter Score** improvement plan jointly with OIT.

ACTIVITIES / PROGRESS

OIT has completed the IT Financial Management implementation and development of a data visualization website for improved transparency and reporting, and shared it with customers to review and submit questions and corrections regarding their utilization. Additionally, the Real-time Billing Working Group met in June to discuss progress on the website and division-level data, and discuss the dispute process to establish a dispute guidance

The fiscal year ended with a 16.67% reduction in contract issues, excluding those with cybersecurity issues (OIT heightened reviews of cybersecurity compliance this year, which resulted in a large jump in related issues). The area with the largest improvement was in contract processing and negotiation, which had a 75% reduction in issues from the previous year. OIT's continued efforts to improve contracts, enhance our vendor management program, and scrutinize vendor security practices will continue to improve the quality of goods and services procured.

The plan was put in place September 27, 2019. Work continues on our five workstreams: Workforce Assessment; Leadership Assessment and Practice; Culture and Organization Structure and Processes; Facilities and Flex Policy; and Communications and Training.

Projects completed in June met the performance and value metric 93.33% of the time. The overall cumulative score for FY20 is 96.32%.

Ensure a Secure Colorado by evaluating and improving statewide cybersecurity practices.

Measured by increasing the State of Colorado's security metric by 26 points for an increase from 51 to 77 by June 30, 2020.



We finished FY20 with **89** the security metric at

75% security improvement during FY20

| WIG 2 STRATEGY | RESULTS as of Q4 FY20 | ACTIVITIES / PROGRESS |
|---|--------------------------------|--|
| Strategy 1: Enhance the statewide security plan by identifying strengths and vulnerabilities, making necessary modifications, and implementing recommended security controls by June 30, 2020. | On Track/ Completed | The plan was enhanced with strengths and vulnerabilities identified and submitted by July 15, 2019. This part of Strategy 1 is complete. Implementing recommended security controls for FY20 is complete. |
| Strategy 2: The BitSight rating will be improved by 50 points for an increase from 550 to 600 by June 30, 2020. | On Track with challenges | The BitSight score is 590. While we didn't hit our goal, we came within 10 points and made significant progress and improvements in our external security health. |
| Strategy 3: The McAfee Compliance score will increase from 60% of agencies meeting the minimum compliance threshold to 85% by June 30, 2020. | Exceeded Goal | With 100% of agencies meeting or exceeding the minimum compliance threshold, we exceeded the target for the year. |
| Strategy 4: 75% of open audit findings as of the beginning of FY20 will be remediated by June 30, 2020. | Exceeded Goal | 87% of open OSA and IRS audit findings have been remediated during FY20. |

WIG 3 Exceeded Goal

Expand virtual access to government services anytime and anywhere.

Measured by increasing the number of government services virtually accessible to Coloradans by five no later than June 30, 2020.

We continue to build and deploy solutions that increase virtually accessible government services for the state; this includes new virtual channels for existing services, such as accessibility via an app, chat, and interactive voice response (IVR). Digital Transformation remains a key focus as collaboration with state agencies drives innovation.

| WIG 3 STRATEGY | RESULTS as of Q4 FY20 |
|--|--------------------------|
| Strategy 1: Rollout of Release 1 of myColorado mobile app to include digital REAL ID ⁵ and other capabilities by June 30, 2020. | Exceeded Goal |
| Strategy 2: Increase broadband access for rural households* from 83% to 92% by June 30, 2020. | Off Track |

*Represents the best estimate of rural household coverage based on the quality of the data available. **The state has set an aggressive goal of 100% of rural household access.

⁵ The federal government has not finalized a digital version of REAL ID. Once the standard is published, Colorado is well-positioned to be one of the first states supporting the standard.

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8 virtual services were implemented in FY20



including myColorado app with Digital ID, myColorado help desk (via voice and email), myDMV integration, myColorado Chat, Virtual Call Centers for myColorado, DNR/CPW, CDPS/State Patrol, and CDPHE's COVID-19 help line.

ACTIVITIES / PROGRESS

Integrated with three new agency services, CDPS pilot started in June 2020. Two minor releases deployed in April, including the new DL/ID personalization look and other enhancements and integrations with support agencies such as CDPHE and HCPF. We had to modify plans as a result of COVID-19 and deployed links to resources. New integrations to support agencies will be deployed including sex offender search and the capability to leverage myColorado to send non-mobile messaging (SMS and email) broadly for the entire state. Minimum Viable Product (MVP) should be available for preview in June 2020.

The current measure is 87% (November 2019), which represents a one point improvement from May 2019. Cycleto-cycle, the measure has never improved more than three points. The FY20 goal was estimated in March 2019 based on the last recorded measure of 83% (November 2018) and an analysis of previous trends over an 18-month period. We anticipated an average increase of two to three points cycle-to-cycle. This assumption was not realized. See the Broadband Update for more information.

| WIG 3 STRATEGY | RESULTS as of Q4 FY20 | ACTIVITIES / PROGRESS |
|--|--------------------------|---|
| Strategy 3: Develop and implement phase one of a Digital Transformation Plan that encompasses emerging technologies, system modernization efforts, and multi-modal unified collaboration strategies (including, as appropriate, data, voice, chat, video, visuals, etc.) to enhance the experience of OIT customers and Coloradans by June 30, 2020. | Off Track | The Digital Transformation Plan was delayed due to COVID-19. Due to spending cuts and the SB-251 requirement to use a vendor to support this work, we have put this item on hold and are realigning the work with internal resources as part of IT Transformation in FY21. |
| Strategy 4: Evaluate the landscape of legacy applications and transition five systems to modern architecture that meets mobile, API-driven, cloud, accessibility, and other standards by June 30, 2020. | Exceeded Goal | Ten (10) applications were deployed including Blue Team (CDPS), CaseConnect (DORA), ClearView (HCPF), IAPro (enterprise-wide), LEDClerk (OIT), Offender Lab Modernization (DOC), PowerDMS (DOR), Sales Tax Analysis (DOR), SharePoint (CDA - Animal Health Labs), and TaxWebForm (DOR). These activities were completed pre- COVID-19. |
| Strategy 5: Develop an incubator group to focus on innovation with a goal of at least one pilot innovation project in collaboration with an agency partner completed with a case study by June 30, 2020. | Exceeded Goal | We significantly exceeded this goal. Pilot innovations projects included implementing a cloud-based IVR for myColorado; virtual call centers for DNR-CPW, CDPS/ State Patrol, and CDPHE's COVID-19 help line; Google Chromebooks for the Governor's Office and DOR; and more. We also participated in the ETHDenver Blockchain developer conference, which generated five potential starts for state blockchain solutions. |
| | | <image/> |
| | | |

IG 3 - Strategy 5 Case Study

| Overview | The Colorado Department of Natural Resources' Division of Parks & Wildlife needed a way to quickly move to taking calls virtually during COVID-19. | | | |
|--------------|---|--|--|--|
| Challenge | Staff were taking calls via an in-office only hunt group⁶ so there was not a virtual model from which to expand on. Staff started "call forwarding" their phones to their cell phone, tying up telephone lines during the massive move to remote work. Only 50% of staff had state cell phones. | | | |
| Solution | Enable all staff to support public needs whether in the office or remote, without tying up office phone lines or incurring costs to procure new cell phones and service. | | | |
| Approach | Test Google Voice for Hunt Group Test Amazon Connect for Hunt Group Implement round robin forwarding from Connect to Google Voice numbers for staff Train on Google Voice on mobile app, personal or state cell phones, and landlines | | | |
| Outcomes | Customer Satisfaction Easier to use and update No new hardware or hardware training No need to visit office Level of service to public had net improvement Able to leverage lessons learned Efficiency Testing in one day, deployed over the weekend No new hardware or contracts required Staff can work remotely and provide better support Potential elimination of office phones | | | |
| Results | Enabled remote office support Reduced need to expand trunk lines Leverage better, less expensive solution No need to procure cell phones Reduced tolls on MIPC phones More responsive to customers | | | |
| Testimonials | "The OIT team that assisted in helping CPW quickly change our operations during the initial days of COVID-19 were a tremendous help in allowing us to serve our customers and to continue to provide public safety to our communities. The extremely agile team was able to provide a variety of solutions to CPW using the technology, providing the flexibility that CPW needed at different locations with different infrastructure and requirements. Quick solutioning, procurement, setup, and implementation greatly minimized disruption as changes to operations occurred at CPW in response to COVID-19." - Kirk Teklits, CPW Technology Liaison | | | |

⁶ A hunt group is a method of distributing incoming calls to a single number to members of a pre-defined group. The hunt group sends the incoming call to the first available person.



Fast Deployment of Virtual Hunt Group Call Center

Additional FY20 Accomplishments

Many of OIT's projects and initiatives span a period of several years and build upon past achievements. Thus, even as we look forward to the next fiscal year and how we plan to shape our future, it's important to look back at some of the many accomplishments attained in FY20.

Agency Projects

At any given time OIT is managing more than 300 projects for our customers. In the first three guarters of FY20, we completed 134 IT projects for 16 state agencies using Agile practices when possible. OIT exceeded our target goal of 91% for Project Value and Performance, and achieved a 95% rating nine months in a row! The following is a small sampling of the major projects completed in FY20.



Governor's Dashboard & Platform Consolidation

During the summer of 2019, OIT worked with the Governor's Office to launch the Governor's Dashboard, a site that provides a summary of the progress being

made toward the Governor's Bold Four initiatives - Reform & Economic Development, Energy & Renewables, Health, and Education & Workforce. Subsequently, OIT coordinated dataintake tool improvements and process improvements to enable Governor's Office self-administration of the Dashboard.

In December 2019, OIT also consolidated and upgraded the Governor's Scheduling Office, Constituent Services, Correspondence, Boards and Commissions, and Legislative Bill Tracking platform, thereby streamlining processes, and increasing reducing costs, communications.

DASHBOARD COLORADO

GOVERNOR'S

LEARN MORE KEY ISSUES & PERFORMANCE V DEPARTMENTS

CONNECT WITH US

Click here to visit the Governor's Dashboard

Hello Colorado!

Velcome to the Governor's Dashboard, where we invite you to take an in-depth look at our progress addressing important issues affecting our state and citizens

LEARN MORE

Health Facilities System Rewrite

The Health Facilities and Emergency Medical Services division within CDPHE regulates more than 3,000 health facilities in Colorado. Their suite of applications automates and tracks the various tasks required by regulation and statute. Through this project, 40 applications were consolidated and replaced with one application and four cloud-based modules. This first-time Agile-run project for CPDHE was completed in FY20, allowing CDPHE to address a significant amount of technology debt. The OIT and CDPHE project team will take lessons learned from phase one to FY21's phase two. Phase one of this project completed in March 2020 on time and on scope.



Sales & Use Tax Simplification System (SUTS)

In 2019 the Colorado General Assembly passed, and the Governor signed, Senate Bill 19-0067, which requires OIT and DOR to implement a simplified, user-friendly system for accepting and processing returns and payments for the sales and use tax levied by the state and the more than 70 local tax jurisdictions. The Sales and Use Tax Simplification was launched in May 2020 ahead of schedule and under budget, the first Major IT Project initiated and completed for the Polis administration. For the first time ever. OIT used the innovative Invitation to Negotiate (ITN)⁸ process for the software procurement. In January 2020, a vendor was selected to provide a central web portal where businesses all over the world can register to remit the correct sales and use tax returns for purchases made by in-state customers, thereby increasing the revenues deposited into the state's General Fund and local tax jurisdictions by potentially millions of dollars. The solution also incorporates an application, based on geographic information systems technology, so users can also easily determine what tax rates apply to purchases based on the location of purchase or point of sale or delivery. Other

⁷ This legislation was a result of the United States Supreme Court's decision in South Dakota v. Wayfair, Inc., et al., which allows states to require retailers without a physical presence in the state to collect sales tax on purchases made by in-state customers. ⁸ OIT is just one of three agencies using ITNs.

The Department of Revenue's My License Office (MyLO) system was migrated to a cloud environment to improve government operations. eGOV, an enterprise add-on solution, was then implemented for online license services used by the Marijuana, Liquor, Racing, Gaming, and Auto Industry enforcement divisions. The MyLO system includes renewal and initial licensing, document uploading, licensee maintenance, and fee payments, and is integrated to the state web portal. This project was completed in November 2019 on time, on budget, and in scope.

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MyLO System Migration and eGOV

success factors include a strong agency-led governance model with DOR leading as the product owner in partnership with OIT, wellmanaged scope and requirements based on strong stakeholdering, solid solution architecture whereby OIT technical and security standards were reviewed upfront with vendors to ensure compliance, adequate funding, and consistent staffing. This project immediately returned \$4.9m to the General Fund due to efficiencies achieved and choices made during the project implementation.

Broadband and Data

Data Integration

OIT matured the enterprise data integration service based on a efficient framework standard, that leads to more productive and demonstrable output from teams across the state enterprise including the Joint Agency Interoperability (JAI) and CDOT teams. This includes a standard

means for governing, publishing, and discovering APIs or associated assets of which approximately 60 such assets are available for reuse with approximately 100 additional currently in production. More information about data sharing and governance can be found in the Government Data Advisory Board's 2019 Annual Report.

Broadband Mapping

The public-facing broadband mapping application was migrated to a more userfriendly and cost-saving platform, while improving upon map functionality.



improved security such as:

enhancing audit logging and

incident alerting, providing

granular network access

controls, improving consistency

over security configuration and

patching, managing privileged

accounts, and performing

data discovery and protection

enhancements. One of the

ten new projects was fully

completed during FY20, and

the others were planned to be

multi-year efforts completed

during FY21.

Cybersecurity

Securing IT **Operations Project**

FY20 was a very exciting year for improving security across the state, aided significantly by a funded decision item titled, "Securing IT Operations." In August 2019, we kicked off work for the Securing IT Operations project, which brings \$12 million of investment to deliver additional security controls across the state. Six new security solutions were implemented addressing

Self-Service Tools The implementation of the Identity

Management toolset included selfservice password reset. Enabling customers to reset their own passwords has resulted in 6,000+ fewer calls to the Service Desk each week. As the state moved to nearly 80% of employees telecommuting during the COVID-19 situation, selfservice has proved to be extremely valuable.

Firewall Migration

OIT continued the enterprise firewall migration to move state agencies to our next generation firewalls providing advanced threat protection, improving both security and stability. These firewalls ensure that complex and advanced threats are properly recognized, filtered, and blocked, thereby reducing and preventing malware, ransomware, and security attacks, while increasing visibility across the state. Additionally, an endpoint security tool was deployed to more than 99% of the state environment to complement our email protection tools and block incoming threats to our environment.

Advanced Email Filtering

Implementation of enhanced email filtering is blocking each month more than 16,000 carefully targeted malicious emails each month, on top of our typical SPAM filtering.

Enhanced Logging and Monitoring

A new enterprise platform was implemented to capture audit and compliance logs across all agency environments. Agencies must meet security compliance for FTI, HIPAA, CJIS, and PII data. This logging platform ensures that log data is captured and reports can be generated for compliance purposes. Additionally, it enables the security team to configure alerts for security events requiring additional analysis.



providing







Educating Employees

A new learning management portal was implemented to improve our capabilities in the mandatory cybersecurity awareness training courses and other role-based cybersecurity training. This new portal with its automated reminders has resulted in 95-98% completion of training the highest completion rates ever! The Office of Information Security hosted the third annual Application Security Symposium.

This was our largest Symposium to date, featuring presentations from some of the state's top technology providers addressing relevant and timely application security topics. Cloud security training was also provided for a significant number of infrastructure personnel. Additionally, new funding in FY20 enabled the creation of a security-knowledgeable cloud architecture and operations team.



Emerging Technologies

Blockchain

OIT actively participated in ETHDenver, the largest Web3 #BUILDathon (formerly known as a hackathon) in the world for blockchain influencers and experts. Blockchain & Distributed Ledger Solution Architect Thad Batt and Digital Transformation Director Russell Castagnaro, took the stage to represent the State of Colorado and the important work we are doing to lead the way in emerging technologies such as blockchain. Our blockchain experts exercised great ingenuity to create an Advance Colorado track, attracting some of the greatest minds from around the globe to identify realworld blockchain solutions that OIT might use for professional licensing at Department of Regulatory hemp regulatory Agencies, compliance at the Department



of Agriculture, and a messaging system in myColorado. In total, ten fantastic use cases were submitted through the Advance Colorado track, five of which received awards.

Additionally, OIT is actively engaged with the Colorado Department of Agriculture regarding HB19-1247 to study the potential applications of blockchain technology in agricultural operations.



PEAK Chatbots

A Chatbot was launched on Colorado's Program Eligibility and Application Kit (PEAK), which is used by millions of Coloradans to apply for and manage medical, food, cash, and early childhood assistance programs. The Chatbot provides answers 24/7 to common technical questions such as when PEAK users need help signing in, viewing their medical card, or checking their application status on Colorado.gov/PEAK. Those are just a few of the many questions the chatbot answers. It also has the ability to connect PEAK users to a member of the PEAK Technical Support team during business hours via chat or phone, or schedule someone to connect back with them at a time convenient for the user. The PEAK chatbot, which is getting more than 1,000 uses per day, was modified in April 2020 to include Unemployment Insurance information.



Modern Software Development Transformation

The state is committed to adopting modern software development practices that encompasses usercentered research and design, modular procurement, product management, Agile delivery principles, and DevSecOps. In the last year, OIT has supported the Governor's Office vision for agencies to take the lead product ownership role for agency-specific products and services.

practices.

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Additionally, the Colorado Digital Service (CDS) team brought in a federal technology group to host a series of workshops on budgeting and procurement for modern software projects, and worked across various projects to identify and implement key steps to deploy modern software development best

Virtual Call Centers

After a successful proof of concept using Amazon Connect for myColorado Interactive Voice Response (IVR) needs, eight additional virtual call centers in various agencies were stood up in response to COVID-19. Most of these systems were implemented in less than one week and enabled agents to safely operate from any physical location while providing optimal customer service. OIT went with the omnichannel cloud contact center approach because it typically costs less than 1% of more commonly used solutions, is easily scalable, and allows for simple integration with other systems. Due to the benefits and successful adoption of these virtual call centers, the OIT Service Desk is deploying one this summer.



FY20 Financial Review

Cost Savings & Cost Avoidance

Consolidation and implementation of newer technologies has afforded OIT the opportunity to attain substantial cost savings/cost avoidance through such activities as renegotiation and/or consolidating enterprise agreements, consolidating and/or decommissioning hardware and software licenses, and moving to cloud-based services.

These deliberate actions have resulted in \$45.7M in cost savings and \$49.1M in cost avoidance for a total of \$94.8M over the past decade⁹. These numbers include:

- The significant return on investment realized with the 2012 implementation of Google Apps for Government (now known as GSuite). For example, Google's 2-Step Verification resulted in a cost avoidance of \$5.7M from fiscal years 2017 through 2019.
- The \$.6 million in cost savings and \$2.2M in cost avoidance for a total of \$2.8M achieved in FY20 from a range of creative improvements (from July 1, 2019 to April 30, 2020).

Appropriation Structure

OIT operates mainly as an internal service organization, and as such, is almost 100% funded via re-appropriated funds, and bills 100% of its reappropriated costs and activities to users in accordance with federal and state governmental accounting standards and guidelines. OIT calculates its common policy services rates on an annual basis and bills these to agencies using an estimated budget and true-up process that translates to a lagging cost reimbursement model.

Oversight

OIT is audited annually by the Office of the State Auditor (OSA) and the U.S. Department of Health and Human Services, Division of Cost Allocation (DCA). The OSA audits OIT's financial transactions and controls as part of the state's annual financial statement audit. Additionally, OIT's billing methodology is audited every year by DCA to ensure that our rate setting methods are sound, that OIT is billing each department equitably in accordance with set rates, and that federal funds are not being used to subsidize state general or cash funded programs. OIT is proud of the fact to have had no major findings from this annual federal review!



⁹ Cost savings and cost avoidance data as of April 30, 2020.

IT Expenditures in FY20

The total IT expenditures across executive branch agencies include costs that the agencies dedicate annually to OIT services (e.g., security, data center, network connectivity, long distance telephone services, etc.) as well as additional and significant costs associated with hardware, software (including lease costs, purchases, maintenance, support, and licensing), and contracted IT services. The following table summarizes FY20 IT expenditures by agency as well as total statewide IT costs managed through OIT.

IT Expenditures By Agency as of June 30, 2020

| AGENCY | PERSONAL SERVICES |
|--------------------------------|--------------------------|
| Agriculture | |
| Corrections | |
| Education | |
| Governor | |
| Health Care Policy & Financing | |
| Higher Education | |
| Human Services | |
| Judicial | |
| Labor and Employment | |
| Law | |
| Legislature | |
| Local Affairs | |
| Military and Veterans Affairs | |
| Natural Resources | |
| Personnel & Administration | |
| Public Health & Environment | |
| Public Safety | |
| Regulatory Agencies | |
| Revenue | |
| Secretary of State | |
| Transportation | |
| Treasury | |
| TOTAL (agency-specific) | |
| | |
| OIT (statewide)* | \$112,621,5 |
| TOTAL IT Expenditures | \$112,621,5 ⁻ |

*reappropriated funds to OIT from agencies

10 The Future is Ours!

| | CONTRACTED SERVICES | OPERATING | TOTAL FY20 SPEND |
|-----|------------------------|---------------|---------------------|
| | \$0 | \$677,902 | \$677,902 |
| | \$0 | \$7,675,096 | \$7,675,096 |
| | \$13,479 | \$6,064,201 | \$6,077,680 |
| | \$6,137 | \$493,986 | \$500,123 |
| | \$0 | \$762,135 | \$762,135 |
| | \$0 | \$3,018,538 | \$3,018,538 |
| | \$4,587,953 | \$14,537,893 | \$19,125,846 |
| | \$4,579,044 | \$17,284,818 | \$21,863,862 |
| | \$183,449 | \$11,480,581 | \$11,664,030 |
| | \$373,531 | \$4,041,579 | \$4,415,110 |
| | \$0 | \$758,860 | \$758,860 |
| | \$0 | \$615,175 | \$615,175 |
| | \$0 | \$230,593 | \$230,593 |
| | \$572,593 | \$4,809,947 | \$5,382,540 |
| | \$1,089,005 | \$6,939,489 | \$8,028,494 |
| | \$943,199 | \$6,997,934 | \$7,941,133 |
| | \$1,762,845 | \$9,547,867 | \$11,310,712 |
| | \$67,930 | \$1,847,202 | \$1,915,132 |
| | \$432,870 | \$11,624,684 | \$12,057,554 |
| | \$1,530,464 | \$2,717,701 | \$4,248,165 |
| | \$344,740 | \$6,547,855 | \$6,892,595 |
| | \$0 | \$623,357 | \$623,357 |
| \$0 | \$16,487,239 | \$119,297,393 | \$135,784,632 |
| | | | |
| 16 | \$65,453,994 | \$170,669,163 | \$348,744,673 |
| 16 | \$81,941,233 | \$289,966,556 | \$484,529,305 |

AWARDS & RECOGNITION

CIO & Executive Director Honored by Girl Scouts of Colorado

CIO and Executive Director Theresa Szczurek, Ph.D. was honored by Girl Scouts of Colorado as one of the 2019 Denver Metro Women of Distinction for being a woman leader in the top community.





Chief **Communications Officer Selected** as 40 Under 40 Winner

Chief Communications Officer Brandi Wildfang Simmons was selected as one of Denver Business Journals' 40 Under 40 winners. These annual awards honor Denver's young dynamic professionals who are also giving back to their community.



Most Admired CISO for 2nd Year CISO Debbi Blyth was recognized by her Colorado peers from the private and public sectors as the "Most Admired" CISO for the second consecutive year.



CIO & Executive Director Lifetime Achievement Award Recipient

In June 2019, CIO and Executive Director Theresa Szczurek. Ph.D. received the Lifetime Achievement Award from the Business and Professional Women of Colorado (BPW Colorado) at their Centennial Jubilee Event.



- CIO and Executive Director Theresa Szczurek, Ph.D. was selected as a public sector winner for the 2020 Colorado CIO of the Year® ORBIE® award. This award recognizes chief information officers for their innovation and leadership excellence.
- Colorado was selected for the third consecutive year to participate in Girls Go CyberStart. A total of 240 girls in 26 Colorado high schools registered for this event, which is designed inspire girls to explore the world of cybersecurity.
- Colorado (along with four other states) was added to National Telecommunications & Information Administration's (NTIA's) National Broadband Availability Map (NBAM) program.
- Colorado was one of only four states selected by the National Governors Association (NGA) to participate in the two-day North American Energy Reliability Corporation (NERC) GridEx V exercise and NGA workshop.
- MyBizColorado was selected as a 2019 Government Experience Award winner. This national award recognizes the achievements and best practices of states, cities, and counties that are radically improving the experience of government and pushing the boundaries of how citizen services are delivered. MvBizColorado is a user-friendly and intuitive website that provides a single path for registering new businesses with the State of Colorado, and obtaining necessary licenses from multiple state agencies. MyBizColorado was possible through a collaborative effort between the Governor's Office, Secretary of State, a number of state agencies, Colorado SIPA, Colorado Interactive, and

APPENDIX A OIT EXECUTIVE STAFF

Theresa Szczurek, Ph.D.

CHIEF INFORMATION OFFICER & EXECUTIVE DIRECTOR

A serial technology entrepreneur and role model for technology leaders, Dr. Theresa M. Szczurek was appointed in January 2019 to lead the Governor's Office of Information Technology. She oversees a nearly 1,000 member team in the operation and delivery of information and communications technology services for 31,000+ state employees and executive branch agencies with missions critical to Serving People Serving Colorado. As a member of Governor Polis' Cabinet, Theresa has jumped boldly into making a meaningful difference in the lives of Coloradans through innovation.

Theresa is a dynamic and award-winning senior business leader in telecommunications, software, and technology industries with experience producing extraordinary results. She co-founded and led three technology ventures - Boulder-based Radish Systems,





LLC, Radish 2.0, an award-winning private enterprise software firm, RCS (i.e., Radish 1.0), a telecom startup she turned into a thriving firm that sold for over \$40 million, and the consulting firm Technology and Management Solutions, LLC. She began her career at AT&T and Bell Labs.

Theresa holds an M.S. in Operations Research from Stanford University and an MBA and Ph.D. in Business Administration (with focus in Marketing & Organization Development) from the University of Colorado. She is also a Certified Management Consultant (CMC®) with the Institute of Management Consultants.



CHIEF INFORMATION SECURITY OFFICER





Anthony Neal-Graves

CHIEF OPERATIONS OFFICER & EXECUTIVE DIRECTOR **BROADBAND OFFICE**





Julia Richman

CHIEF STRATEGY OFFICER

Brandi Simmons CHIEF COMMUNICATIONS OFFICER



CHIEF FINANCIAL OFFICER



CHIEF CUSTOMER OFFICER



CHIEF TECHNOLOGY OFFICER





& PUBLIC INFORMATION OFFICER

APPENDIX B FY 2018-19 IT EXPENDITURES

The following table summarizes the FY19 IT expenditures by individual agencies with statewide IT costs managed through OIT at the bottom.

FY2018-19 IT Expenditures by Agency

| AGENCY | STATE FTE PERSONAL SERVICES | CONTRACTED SERVICES | OPERATING | TOTAL FY19 SPEND |
|--------------------------------|-----------------------------------|------------------------|---------------|---------------------|
| Agriculture | | \$136,771 | \$509,630 | \$646,400 |
| Corrections | | \$0 | \$8,255,976 | \$8,255,976 |
| Education | | \$29,465 | \$4,644,126 | \$4,673,591 |
| Governor | | \$0 | \$384,758 | \$384,758 |
| Health Care Policy & Financing | | \$0 | \$2,286,743 | \$2,286,743 |
| Higher Education | | \$26,707 | \$1,873,400 | \$1,900,107 |
| Human Services | | \$4,081,321 | \$15,276,657 | \$19,357,978 |
| Judicial | | \$5,235,964 | \$14,484,137 | \$19,720,101 |
| Labor and Employment | | \$3,297 | \$16,494,658 | \$16,497,955 |
| Law | | \$652,376 | \$2,720,025 | \$3,372,400 |
| Legislature | | \$0 | \$627,173 | \$627,173 |
| Local Affairs | | \$0 | \$738,242 | \$738,242 |
| Military and Veterans Affairs | | \$0 | \$310,044 | \$310,044 |
| Natural Resources | | \$1,249,185 | \$7,314,697 | \$8,563,881 |
| Personnel & Administration | | \$1,056,740 | \$7,189,852 | \$8,246,592 |
| Public Health & Environment | | \$3,983,554 | \$6,644,804 | \$10,628,358 |
| Public Safety | | \$810,200 | \$7,861,698 | \$8,671,898 |
| Regulatory Agencies | | \$48,510 | \$1,596,079 | \$1,644,589 |
| Revenue | | \$421,105 | \$9,331,661 | \$9,752,766 |
| Secretary of State | | \$1,206,759 | \$2,658,047 | \$3,864,806 |
| Transportation | | \$1,081,820 | \$6,198,752 | \$7,280,572 |
| Treasury | | \$0 | \$552,296 | \$552,296 |
| TOTAL (agency-specific) | \$0 | \$20,023,773 | \$117,953,455 | \$137,977,228 |
| OIT (statewide)* | \$104,079,911 | \$60,688,044 | \$156,963,884 | \$321,731,839 |
| TOTAL IT Expenditures | \$104,079,911 | \$80,711,046 | \$274,917,339 | \$459,709,066 |

The operating costs in the table above include IT maintenance expenses and IT-related purchases (e.g., hardware and software). This subset of operational costs is displayed below by the agency.

FY2018-19 IT Maintenance and IT-Related Purchases by Agency

| AGENCY | IT MAINTENANCE | IT-RELATED PURCHASES | TOTAL |
|--------------------------------|-------------------|-------------------------|--------------|
| Agriculture | \$90,881 | \$109,682 | \$200,564 |
| Corrections | \$1,380,891 | \$3,526,291 | \$4,907,183 |
| Education | \$2,535,790 | \$607,861 | \$3,143,651 |
| Governor | \$22,107 | \$185,556 | \$207,663 |
| Health Care Policy & Financing | \$1,742 | \$656,259 | \$658,001 |
| Higher Education | \$892,838 | \$286,001 | \$1,178,839 |
| Human Services | \$3,742,069 | \$2,896,275 | \$6,638,345 |
| Judicial | \$3,365,197 | \$3,769,094 | \$7,234,292 |
| Labor and Employment | \$0 | \$838,797 | \$838,797 |
| Law | \$180,144 | \$1,459,214 | \$1,639,357 |
| Legislature | \$392,390 | \$20,988 | \$413,378 |
| Local Affairs | \$5,611 | \$189,731 | \$195,342 |
| Military and Veterans Affairs | \$45,578 | \$173,517 | \$219,095 |
| Natural Resources | \$828,790 | \$1,399,486 | \$2,228,275 |
| Personnel & Administration | \$5,971,509 | \$571,120 | \$6,542,629 |
| Public Health & Environment | \$699,334 | \$4,251,725 | \$4,951,059 |
| Public Safety | \$2,551,876 | \$2,068,224 | \$4,620,100 |
| Regulatory Agencies | \$574,655 | \$516,947 | \$1,091,603 |
| Revenue | \$4,351,457 | \$2,447,974 | \$6,799,431 |
| Secretary of State | \$2,103,945 | \$33,983 | \$2,137,928 |
| Transportation | \$6,030,766 | \$259,886 | \$6,290,652 |
| Treasury | \$0 | \$13,633 | \$13,633 |
| TOTAL (agency-specific) | \$35,767,570 | \$26,382,246 | \$62,149,817 |

*reappropriated funds to OIT from agencies

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