



COLORADO

**Governor's Office of
Information Technology**

Serving people serving Colorado

FY17 Annual Report



Letter from the Secretary of Technology & State Chief Information Officer

I am pleased to present the FY17 Governor's Office of Information Technology Report in accordance with C.R.S. §24-37.5-101 et seq. We have major accomplishments to celebrate from the past year that are shaping our direction as OIT moves into the next phase of its maturity.

- Our customer satisfaction shot up 21 percent, indicating that our service delivery, our major incident management and our application management are succeeding as fortified processes that ensure we are meeting our customer's needs.
- We instituted 2-Step Verification for the state's 31,000 employees using Google email, drastically reducing successful phishing attacks.
- Our Playbook and 5-Year IT Plans won national acclaim as tools that are truly enabling us to be responsive to our customers while managing state budget constraints.
- OIT became home to Colorado's Executive Director of the Colorado Broadband Office. Due to meaningful and strategic collaboration with our agency partners and years of hard work of our broadband team, the state is moving closer to Governor Hickenlooper's goal of 100 percent broadband coverage by 2020. In particular, OIT has worked with the Governor's Office and EducationSuperHighway to bring better, cheaper broadband to rural school districts.
- We hired the state's first Digital Transformation Officer in an effort to focus on user experience and ease of interaction with state government at every digital touchpoint.
- Our teams have worked tirelessly to stabilize our infrastructure with critical attention paid to network redundancy, data center consolidation, and ensuring that our Digital Trunked Radio System is always available for our first responders.



These are just some of the highlights from the past year. I encourage you to review this report, and hopefully you will see what I see: an IT organization that has grown leaps and bounds since consolidation, and one that is dedicated to the mission of "serving people serving Colorado."

Best Regards,

A handwritten signature in black ink that reads "Suma" with a stylized flourish underneath. The year "20" is written in small numbers at the bottom right of the signature.

Suma Nallapati
Secretary of Technology & CIO



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Introduction

“Serving People Serving Colorado”

The Governor’s Office of Information Technology (OIT) is responsible for the operation and delivery of all information and communications technology (ICT) services across the executive branch agencies in the State of Colorado. Our charge is twofold: to provide best-in-class information technology services (IT); and to promote Colorado as the ideal location for IT companies and technology-based workers in conjunction with the Office of Economic Development and International Trade (OEDIT).

As the enterprise provider of technology, OIT drives innovative solutions, provides quality service, acts as a broker for new IT services, and supports the agencies whose missions are to serve Colorado’s residents. We oversee technology initiatives across the enterprise, partner on project implementations, lead technical standards, and maintain applications for state agencies. Through our Office of Information Security, OIT is also responsible for information security across all public agencies¹. Our enterprise approach facilitates the agile delivery of cost-effective, reliable, accessible, and secure IT services to state agencies that improve citizen access and engagement with government services, while increasing accountability and transparency.



Our **passion, purpose, and motivation** is to serve the state of Colorado. We collaborate with customers to provide day-to-day digital support and present smart solutions that transform government through IT. We push ourselves to deliver next generation, integrated technology in order to create a dynamic end-user experience for Coloradans and offer the expertise our customers expect.

Our **mission** is to securely enable the effective, efficient, and elegant delivery of government services through trusted partnerships and technology. We measure our achievements by whether our outcomes are successful and relevant (effective); eliminate waste and duplication and provide the best value at the lowest cost (efficient); and deliver services in a way where the employees and public feel respected and elevated through their experience (elegant).

Our **vision** is to enrich the citizen experience at every digital touchpoint. We envision a future where the end-user experience shapes design and data analytics transform how the state responds to the needs of its residents. As we work with our customers to develop technology solutions that meet their business needs, the user experience is at the forefront. That means making it easier for Coloradans to interact with their government in a way that makes sense for them. No more one size fits all. Instead, we strive to provide next generation solutions for our agency customers so they in turn can offer Coloradans multiple engagement options, including secure online and mobile access.

¹ As defined in C.R.S. §24-37.5-402(9)

At OIT, we recognize that how we deliver is as important as what we deliver. Our **core values** define our character, and each employee is expected to embody the values in all the work we do, and these values are incorporated into every employee’s annual performance plan².

SERVICE

Serving the people of Colorado
Intentionally and generously serving others for a better Colorado



INTEGRITY

Demonstrating credibility and sincerity in our work
Inspiring confidence and trust in the Governor’s Office of Information
Technology through our personal conduct



TEAMWORK

Collaboratively working together at OIT and across the state
Working cooperatively with others and engaging in constructive dialogue
to overcome difficult challenges



RESPECT

Appreciating and acknowledging the role, diversity,
and contribution of those with whom we work
Consistently conducting ourselves in a way that shows regard and
thoughtfulness to others



COURAGE

Pushing boundaries to foster positive change
Proactively and positively pursuing the transformations necessary to
address tough issues and drive innovation



² The state’s performance plan cycle is from April 1 to March 31; the fiscal year is from July 1 to June 30.



The Story of OIT

The Governor's Office of Information Technology's story has been, and always will be, about the people of Colorado. Whether it is our employees who are IT experts in their field, the people working in state agencies who rely on our IT services to perform their jobs, or the residents and businesses of this great state of Colorado who depend on technology to interact with their state government, OIT's story of success is rooted in a commitment to the communities we serve.

When information technology was consolidated into one entity - OIT - in 2008, we were fortunate to have some of the best minds in IT who believed in supporting our state agencies with passion and purpose.

As we support IT systems old and new, OIT's employees are focused on their mission to "serve people who serve Colorado." Their work is a daily reminder of their commitment - and their jobs are many. Our teams support the Colorado Benefits Management System (CBMS), which serves our residents most in need with food, cash, and medical assistance. Our workers drive across rugged terrain in the most difficult weather to maintain our Public Safety Communications Network and make sure it is up and running 365 days a year for our first responders. The people on our teams know the importance of information security and strive every day to make sure state information is kept safe from hackers and cyber attacks. They also know the value and the promise of good customer service for our state agencies.

OIT's story from beginning to end is about the people of Colorado. We are as excited as ever to serve our agencies and use emerging technologies to enhance the citizen experience at every digital touchpoint. It is our mission, our passion, our promise.

A Brief History

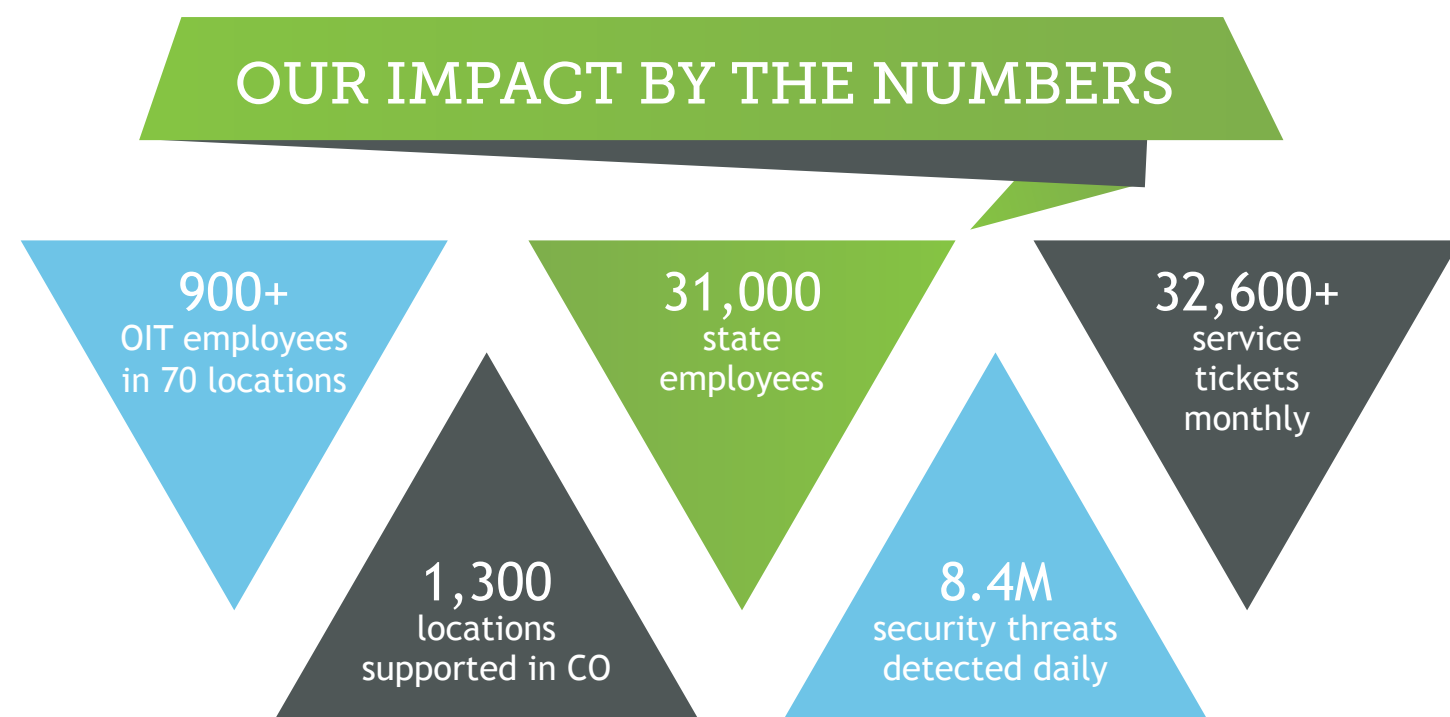
The Governor's Office of Innovation and Technology was created in 1999 (and renamed Governor's Office of Information Technology in July 2006) to serve as an advisory organization to the governor and state agencies. At that time, information technology services and support were provided by each state agency in an independent, and at times, redundant manner. The result was a disparate infrastructure, duplication of functions and services, increased security risks, failing projects, and the inability to leverage statewide procurement opportunities.

The overwhelming bipartisan passage of SB08-155³ considerably shifted how IT services would be delivered to executive branch agencies in Colorado state government. As a result of this legislation, all IT functions, systems, and assets were consolidated from 17 executive branch agencies into a single organization - the Governor's Office of Information Technology - in July 2008.



Much like a merger of 17 diverse companies, the consolidation brought with it significant challenges but also provided an extraordinary opportunity to plan, enable, and implement truly transformative and lasting change for the state of Colorado. OIT took this historic opportunity to challenge the status quo and create an enterprise IT organization that is more effective in the delivery of a full range of technology solutions and services not only for today but also for the future.

Recognizing the important role information technology plays in the state's economic development efforts, in 2011 Governor John W. Hickenlooper expanded the state's Chief Information Officer (CIO) responsibilities to include the role of Secretary of Technology. Sumana (Suma) Nallapati was appointed to this dual role in June 2014.



³ Codified in C.R.S. §24-37.5-101 et seq.

SECTION I

Business Overview and Operational Accomplishments

The OIT Playbook

The OIT Playbook is our strategic and operational roadmap that defines specific key initiatives and goals we want to accomplish during the course of the fiscal year. The Playbook also provides our stakeholders (i.e., customers, employees, Colorado General Assembly, and partners) with a guide towards our future - where we aim to be and how we will get there - while linking our core mission, vision, and values to our strategies and goals. Since FY15, OIT has kept a steady focus on four major areas: Service Excellence, Information Security, Employee Engagement, and Strengthening Colorado's Technology Landscape.

The strategic initiatives were not created in a vacuum. Instead, we incorporated a bottom-up approach, obtaining input from leaders and staff from each of the functional groups⁴ as well as customers to help determine our most important goals for the year. Additionally, OIT worked with our agency partners to make sure their business needs helped inform our direction. The teams' plans, metrics, goals, and initiatives laid the groundwork for the enterprise Playbook.

Strategic Planning Methodology

In May 2014, the Governor's Office selected a new strategic planning methodology. The 4 Disciplines of Execution (4DX) has been instrumental in providing the executive branch with a common language and consistent method for developing and measuring strategy execution.

OIT quickly adopted this methodology and has been pleased with the process and results. This methodology employs four concepts to align and progress an organization toward common goals. These four disciplines, which specifically target the routine and behavioral change necessary to drive organizational improvement, are: (1) Focus on the Wildly Important; (2) Act on the Lead Measures; (3) Keep a Compelling Scoreboard; and (4) Create a Cadence of Accountability.

⁴ As an Office of the Governor, OIT does not have divisions. Instead, the term Functional Group (aka Functional Unit or Functional Office) refers to the primary groups under an Executive Leadership Team member's (ELT) oversight. In FY16, there were six functional groups, the offices of: financial services, information security, customer, technology, strategy, and communications. The term Functional Team refers to the individual teams within each functional unit (e.g., Enterprise Applications is a functional team within the Chief Technology functional unit, HR is a functional team within the Customer Office, etc.). See Appendix A.

Wildly Important Goals and Playbook Results

Wildly Important Goals (WIGs) are the topmost goals from which all other organizational initiatives flow. In FY17, OIT placed a focus on four primary areas: Delivering Effective Solutions and Reliable Customer Service; Securing Colorado Through Innovation; Advancing a Culture of Employee Support and Collaboration; and Strengthening Colorado's Technology Landscape.

	Delivering effective solutions & reliable customer service	Securing Colorado through innovation	Advancing a culture of employee support and collaboration	Strengthening Colorado's technology landscape
	Achieve a 15% increase in Service Excellence rating by June 30, 2017	95% of agencies with Risk Scores below 11 by June 30, 2017	2% increase in OIT's Employee Engagement Score by June 30, 2017	80% of rural households have access to broadband by June 30, 2017
MEASUREMENT	<i>The Net Promoter Score (NPS) is used to gauge customer loyalty and satisfaction that their needs are being met</i>	<i>McAfee Risk Advisor is the tool used to determine the security risks that the state faces</i>	<i>The state's and OIT's Employee Engagement Survey⁵ are used to gauge this measure</i>	<i>% of Rural Households Meeting Minimum FCC Broadband Standards</i>
RESULT	<i>With a 21% increase in the Service Excellence Rating, we exceeded our goal. The Net Promoter Score is aligned with industry performance -- meaning where OIT sits on the NPS scale is similar to companies like Deloitte, Wipro, and Hitachi.</i>	<i>We exceeded this goal with 100% of agencies having a Risk Score below 11. This is well under the industry standard of 20.</i>	<i>Although we have seen fantastic increases since 2014 (e.g., 56% to 67% in 2016), we experienced a 2% decrease in our FY17 employee engagement score.</i>	<i>Broadband availability was increased from 70 to 77 percent, which is a bit below our goal. Steps are being taken in FY18 to hone our measurement of broadband coverage so that it reflects a more accurate picture with a lower margin of error.</i>

⁵ The Employee Engagement Survey is administered by a third-party source in the the fall of every year. The survey is sent to all state employees by the Department of Personnel & Administration (DPA) every odd year and in even years, is sent to just OIT employees by our HR team.

Playbook Activities and Accomplishments

Seventeen enterprise initiatives, some of which are multi-phased or multi-year, arose out of these WIGs and were incorporated into the OIT FY17 Playbook. We are proud of our year-end results:

4 (24%) initiatives were completed and closed out

13 (76%) of the initiatives had achieved key milestones and are on target for an on-time completion



The following are just a few examples of our key WIGs and Playbook initiatives, and serve to show how they tie together. A full list of the seventeen enterprise initiatives is found in Appendix C.

Delivering Effective Solutions and Reliable Customer Service

Delivering consistent, high quality services to agency customers is our priority. As we improve our service ticket handoffs, clarify expectations and processes, and equip our technology professionals with the tools they need to best serve the customer, we are creating a more seamless and positive end-to-end customer experience across all channels.

Creating a Common Platform: A two-year effort was concluded in FY17 that brought all executive branch agencies onto a single eVPN platform. Now, all state employees have access to a secure platform that connects to the state network when working remotely. They will also enjoy common benefits as future upgrades and enhancements are made.



Securing Colorado Through Innovation

Reducing Risk Through Education: Our Office of Information Security (OIS) is tasked with making information security training available to all state employees and delivers short web-based cybersecurity lessons each quarter. Due to the nature of our work, employees at OIT have access to a broad range of data. To supplement the statewide training, in FY17 OIS developed and delivered a new security and privacy awareness training course just for OIT employees to help ensure the proper protection of the data and systems we are entrusted with.

Stepping Up Security: “Hello. I’ve sent you a confidential document. Enter your username and password to open it.” That’s how it often begins - a simple email coming from what appears to be a known and trusted source. It ends with credentials being harvested across hundreds of accounts. To combat this growing and time intensive problem, Google 2-Step Verification was implemented across the enterprise to strengthen email security and reduce the potential for successful phishing attacks. We have achieved 100 percent compliance, and Colorado is the first state to implement Google 2-Step Verification.

Strengthening Colorado’s Technology Landscape

OIT successfully supported the Broadband Deployment Board in establishing the first state managed grant program for last-mile broadband projects. The board completed its initial round of applications in FY17 and awarded \$2.1 million to seven projects that will bring better broadband to approximately 4,500 homes in rural Colorado.

Having formalized a partnership with EducationSuperHighway, OIT and the Governor’s Office worked with local school districts to develop collaborative approaches to the federal E-rate program focused on ensuring connectivity for K-12 schools. Through these efforts, two consortia-style efforts were able to bring affordable broadband services to more than 30 individual school districts, with some districts seeing more than a 70 percent decrease in costs.

Continuing to support the statewide effort to implement the FirstNet network, OIT led the state’s consultation with FirstNet as well as focused on identifying alternative options for the implementation. With the national award going to AT&T in March, OIT continues to work to develop the best state plan possible while also ensuring the state explores all options through an alternative plan Request for Proposal (RFP) that was issued in March 2017.

Advancing a Culture of Employee Support and Collaboration

At OIT, we strive to make the workplace an environment where creative people with passion for our community come together to solve complex problems and strive for continuous service improvement. We are fostering an environment where employees take pride in delivering critical services that impact our entire state. We believe that together we can create a culture where we all feel connected to each other and to our work, leading to better outcomes for our customers. We also help make sure that employees understand their value to the organization and our customers. To further these efforts, our Employee Rewards & Recognition Program was replaced with a more robust program that was based on employee feedback.


Performance Measures

In addition to the targets defined in the Playbook, OIT annually develops a more tactical and operational set of performance measures that are integral to the day-to-day service delivery management and connect with OIT’s mission. This complete set of metrics is called the OIT Enterprise Scoreboard. This internal scoreboard provides an executive summary aligned to OIT’s Wildly Important Goals. In all, nearly 100 performance measures were managed and maintained for each of these performance-based areas⁶.

Produced monthly, the Scoreboard identifies trends, target metrics, and actual performance metrics. The Scoreboard has helped OIT achieve consistency of performance expectations against strategic priorities and has helped assure organizational alignment to our core objectives. In short, it tells us how we are doing and whether we are improving over time. In addition, the Scoreboard provides a foundation for data-driven decision-making and creates transparency and focus across the organization.


OneView Dashboards

Just as OIT gathers metrics on our WIGs and operational goals, so do we gather data for each customer agency to provide them with a transparent snapshot of their IT projects and resources. These monthly dashboards help to ensure that we consistently deliver the IT services that align with our customers’ highest business priorities.



OneView | Agency Dashboard

Department of Revenue, June 2017



DOR Critical Projects		Project Status	Business PM	IT PM	Stage	Planned Completion Date	Actual Completion Date	New Completion Date	Reason on Dashboard	Quick Status
Colorado DRIVES		Green	VanDragt	Roberts	Initiate	8/6/2018		-	Large Project	Rollout 2 Began April 2017
MyLO System Migration/eGOV		Green	Hartman	Bailey	Implementation	6/30/2017			Major System Migration	Anticipated to be complete late July.
Pipeline Project (2017 Tax Season Forms)		Green	Norman	N/A	Implementation	1/20/2017		1/25/2017	Governor's Interest	In production
Mega Million		Green	Reiter	N/A	Implementation	11/6/2017		-	New ticket vendor	Proposals under review
Driver License and Identification Card Production System		Green	Singh	Bailey	Implementation	11/18/2015		TBD	Large Project	Working with Vendor on Mobile Units / Audit Data
OIT/Letterly IT Project		Green	Reiter	Harbo	Analyze	10/16/2015		TBD	Statutory Compliance	OIT and LOT Discussing Back Office Upgrade Timeline

CSTARS Critical Projects		Project Status	Business PM	IT PM	Stage	Planned Completion Date	Actual Completion Date	New Completion Date	Reason on Dashboard	Quick Status
CSTARS - Pitkin County MV Office Remodel and Relocation		Green	Singh	Wika	Implementation	6/30/2017		4/30/2018	County Support	Remodel underway
CSTARS - FY17 Refresh		Green	Singh	Wika	Complete	6/30/2017		-	County Support	Quotes approved, schedule under review
CSTARS - Printer Refresh		Green	Singh	Wika	Implementation	6/30/2017		10/1/2017	County Support	Additional Trays Being Deployed; Xerox Testing Fix

OPERATIONS

Network Availability: 99.97% Server Availability: 99.93%

of Major Incidents

- xx Vendor Related Incidents:
 - Description
- xx Application / Infrastructure Related Incidents:
 - Description
- Issues and Hot Topics**
 - Brief bulleted description

SUPPORT

	DOR	GenTax	County/ CSTARS	Engility
Calls	1735	N/A	817	N/A
Incidents*				
Open	1229	N/A	536	37
Closed	1208	N/A	545	41
% w/in SLC	98%	N/A	99%	100%
Change Orders				
Open	462	214	28	2
Closed	520	210	33	0

*Incident-break, failure; Change Order-prod code update, move, request (e.g. equip, access)

PLANNED CHANGES [July, Scheduled and/or Pending Approval]

- RFC # – Planned change title
- RFC # – Planned change title

FINANCE

- ITD / CSTARS - Working with DOR AFS on year-end Roll/Lapse.

⁶ Examples include: Cost Savings and Avoidance, Number of Days to Complete a Contract, Employee Attrition, Mean Time to Total Resolution, System Availability, Project Health, and Statewide Security Awareness Training.

Additional Key Accomplishments

The Governor's Office of Information Technology engages in many projects and activities in its pursuit of continually improving the IT support and services it provides to state employees as well the applications that enable Coloradans to do business with the state. The following are just a few examples that highlight our work over the fiscal year.

Improving the Customer Experience

CBMS / PEAK

The Colorado Benefits Management System (CBMS) is the essential system that determines eligibility and manages public benefits such as cash, food, and medical assistance for our state's most vulnerable residents. The Program Eligibility and Application Kit (PEAK)⁷ is a self-service portal that allows Coloradans to screen and apply for public assistance benefits and manage their accounts online.

In FY17, the team continued to focus on enhancing the client experience and on implementing improvements in usability and workflow. Both CBMS and PEAK were enhanced with functionality to support Connect for Health Colorado, including determining eligibility for Advanced Premium Tax Credits and Cost Sharing. Significant improvements were implemented to increase application and data security. Additionally, a PEAK technical support team was established to enable real time support for people using PEAK to apply for services, check on benefits, report changes, view correspondence, and manage accounts.

Colorado DRIVES



OIT continued its work on the multi-year, two-phased project to replace the state's aging Driver License System and Colorado State Title and Registration System (CSTARS) with one, integrated modern system called DRIVES for the Division of Motor Vehicles (DMV). The new web-based Driver License component was rolled out in February 2017 to more than 58 state and county DMV offices, and the eServices platform was

expanded to enable the public to transact a greater variety of services online. Additionally, an Operations Support Center (OSC) was formed to provide temporary telephone support to the user community in the Driver License Offices as they transitioned to the new system. Roadshows were arranged by the Department of Revenue to bring DRIVES to all of the county stakeholders, and the training team (which includes OIT), traveled more than 8,635 miles to visit 96 county offices and deliver 150 roadshows to more than 1,288 county employees.

Unemployment Insurance Application Modernization

The Division of Unemployment Insurance has undertaken a multi-year modernization of its core technology systems - Colorado Unemployment Benefits System (CUBS) and Colorado Automated Tax System (CATS). This project involves converting the code that runs the existing mainframe systems. To modernize the system, we have deployed a suite of independently deployable, small modular services in which each service runs a unique process and communicates through well-defined rules to serve a specific business goal. Among the many accomplishments, OIT built out 10 environments and 60 servers for support of the UIM project in FY17; and installed integration software and built an abstraction proof of concept for CUBS.



Modernizing Applications to Help Agencies Be More Efficient

DeCORuM

In collaboration with the Department of Corrections (DOC) and an application software vendor, OIT continues its work on a multi-year, multi-phased project called DeCORuM to create a single, web-based electronic Offender Management Information System (eOMIS) that will more efficiently manage the state's prison population. Over the course of FY17, a state-of-the-art system was implemented to support 24x7 operation of eOMIS. This includes implementation of redundant servers to provide high availability, as well as a disaster recovery system with "hot backup" that provides immediate changeover with minimum loss of connectivity.

Additionally, Phase I - Electronic Health Records (EHR) went live in January 2017, replacing many of the legacy clinical functions. EHR makes it easier and faster for medical staff to perform daily tasks and find the information they need. An electronic interface for a laboratory component was also implemented to replace the manual submission and retrieval method previously used by the department.

⁷ The portal is accessible at colorado.gov/peak

IT Service Management EcoSystem

The IT Service Management (ITSM) EcoSystem is a set of cohesive and integrated tools, implemented by OIT in 2014 to help us more efficiently and consistently deliver technology support and services to our state agency customers and their programs that serve Colorado's residents.

In FY17, an option to request standard IT onboarding and offboarding within the ITSM was implemented, allowing users to engage with OIT for timely system access as staff are hired and deprovisioning of access when they leave. When fully built out, the EcoSystem will provide better service delivery, support, and incident response and resolution times. Additionally, the tools will enable a consistent customer experience across enterprise service offerings through an improved customer-facing web portal. The final stages of implementation will be completed in FY18.

SECTION II

Financial Review

OIT's Financial Services team oversees the financial activities of OIT. They also oversee all IT-related financial activities for the executive branch and assist with IT financial planning, budgeting, procurement, contracting, accounting, and reporting. Specific duties include:

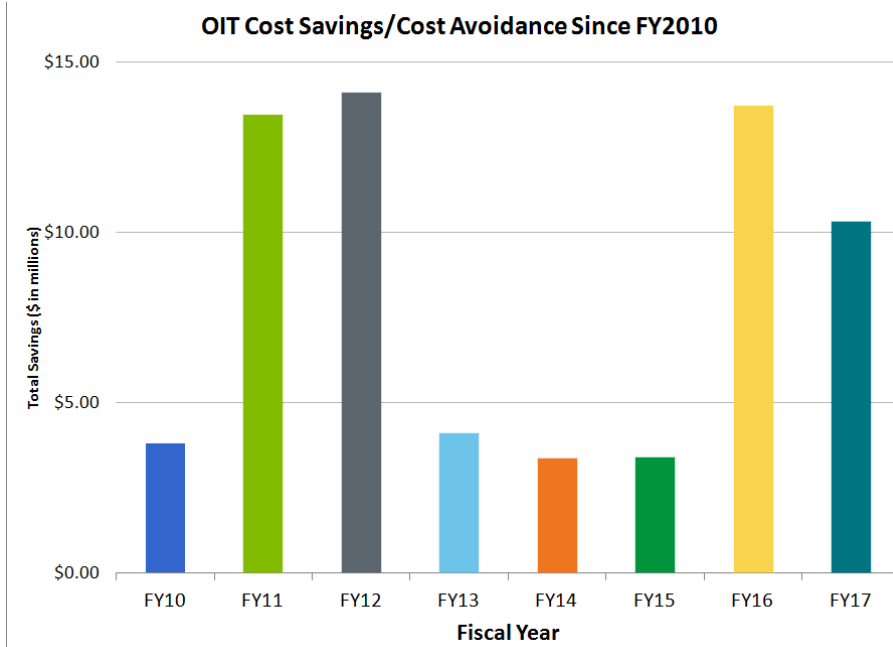
- Management of enterprise budget, accounting, procurement and contracting processes
- Capital investment planning, financial modeling and cost reduction/containment activities
- Administration of Procurement and Vendor Services
- Maximizing IT spend across the state
- Consolidation of enterprise-level contracts and procurements
- Financial analysis and trending

Cost Savings/Cost Avoidance

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

OIT's implementation of Google Apps for Government in 2012 continues to show a significant return on investment. In FY17, the use of Google services for 2-Step Verification resulted in a cost avoidance of more than \$1.3M and a projected recurring cost savings over the next five years.

Through these deliberate actions, OIT achieved \$11.8 million in cost savings/cost avoidance in FY17. More than \$68.1 million in cost savings/cost avoidance have been realized since FY10.



Appropriation Structure

OIT operates mainly as an internal service organization, and as such, is almost 100 percent funded via re-appropriated funds, and bills 100 percent of its costs and activities to users in accordance with federal and state governmental accounting standards and guidelines. OIT calculates its services rates on an annual basis and bills its services to departments on a cost reimbursement basis.

IT Expenditures in Fiscal Year 2016-17

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, etc.) as well as additional and significant costs associated with hardware, software (including lease costs, purchases, maintenance, support and licensing) and IT professional contractor services.

The following table summarizes the FY17 IT expenditures by agency⁸.

AGENCY	CONTRACTED IT SERVICES	OPERATING	TOTAL FY17 SPEND
Agriculture	\$15,590	\$487,508	\$503,098
Corrections	\$63,169	\$9,283,753	\$9,346,922
Education	\$76,276	\$3,499,700	\$3,575,976
Governor	\$3,102	\$858,300	\$861,402
Health Care Policy & Financing	\$0	\$1,768,161	\$1,768,161
Higher Education	\$38,226	\$1,591,970	\$1,630,196
Human Services	\$4,389,706	\$5,249,854	\$9,639,560
Judicial	\$3,553,432	\$16,568,174	\$20,121,606
Labor & Employment	\$0	\$7,581,658	\$7,581,658
Law	\$410,588	\$1,718,668	\$2,129,256
Legislature	\$0	\$987,384	\$987,384
Local Affairs	\$0	\$592,049	\$592,049
Military & Veterans Affairs	\$3,500	\$93,896	\$97,396
Natural Resources	\$302,958	\$3,922,829	\$4,225,787
Personnel & Administration	\$1,201,310	\$6,730,143	\$7,931,453
Public Health & Environment	\$1,266,992	\$5,894,711	\$7,161,703
Public Safety	\$1,323,494	\$8,054,906	\$9,378,400
Regulatory Agencies	\$134,767	\$955,349	\$1,090,116
Revenue	\$241,009	\$7,830,262	\$8,071,271
Secretary of State	\$1,360,074	\$2,027,892	\$3,387,966
Transportation	\$3,101,287	\$6,928,346	\$10,029,633
Treasury	\$0	\$330,630	\$330,630
Total (without OIT)	\$17,485,480	\$92,956,143	\$110,441,623
Office of Information Technology (+ \$125,585,216 State FTE Personal Services)	\$32,243,292	\$103,679,336	\$261,507,844
Total IT Expenditures	\$49,728,772	\$196,635,479	\$371,949,467

⁸ In FY17, we changed the methodology of how this data is captured and presented. The figures for agencies in this chart represent expenditures initiated by agencies directly to vendors and exclude those initiated or billed to the agencies by OIT.

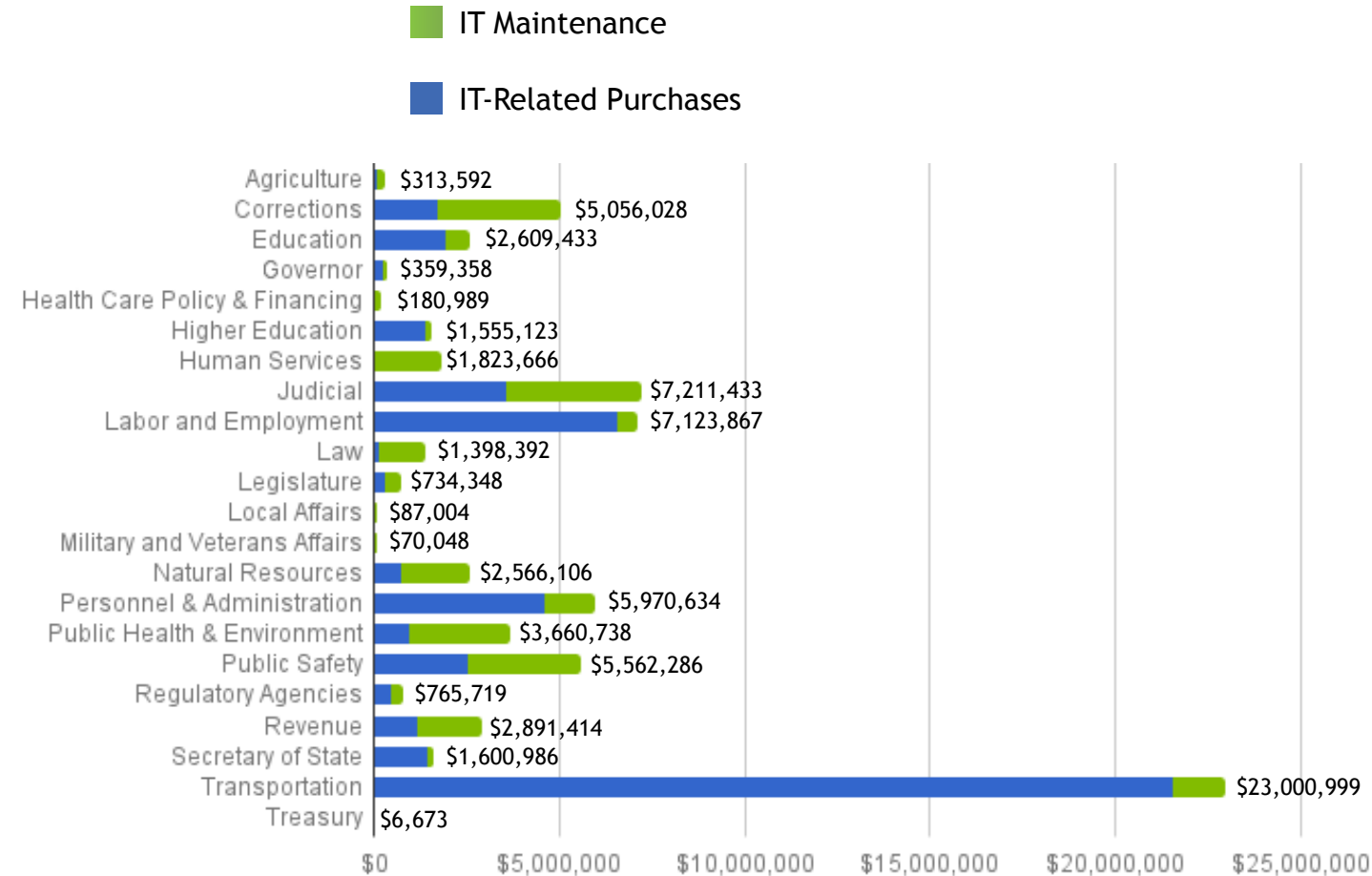
Oversight

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 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 that we have had no major findings from this annual federal review!

Information Technology Budget

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

FY17 IT Maintenance and IT-Related Purchases



SECTION III

IT Economic Development

Through private and public partnerships, Colorado will be recognized as a nucleus for innovation, technology, and economic growth -- the “Silicon Mountain of the IT Community.”

In 2011, the state CIO took on the added responsibility of Secretary of Technology. This dual role was created to provide specific industry focus on attracting, growing, and retaining information technology jobs and businesses in Colorado in addition to overseeing all information technology services for the state. This move recognized the importance and strategic prominence that the technology industry has to the state’s economic future.

The Secretary of Technology is charged with driving IT economic development for the state by promoting Colorado as a headquarters location for technology companies, attracting technology companies to relocate/expand here, and foster relationships with technology companies already in Colorado to strengthen their commitment to our state. In close collaboration with the Office of Economic Development & International Trade (OEDIT), our commitment to job creation helped contribute to 5,442 net new IT jobs being added to Colorado in FY17; bringing the total number of IT jobs in Colorado to approximately 111,000.

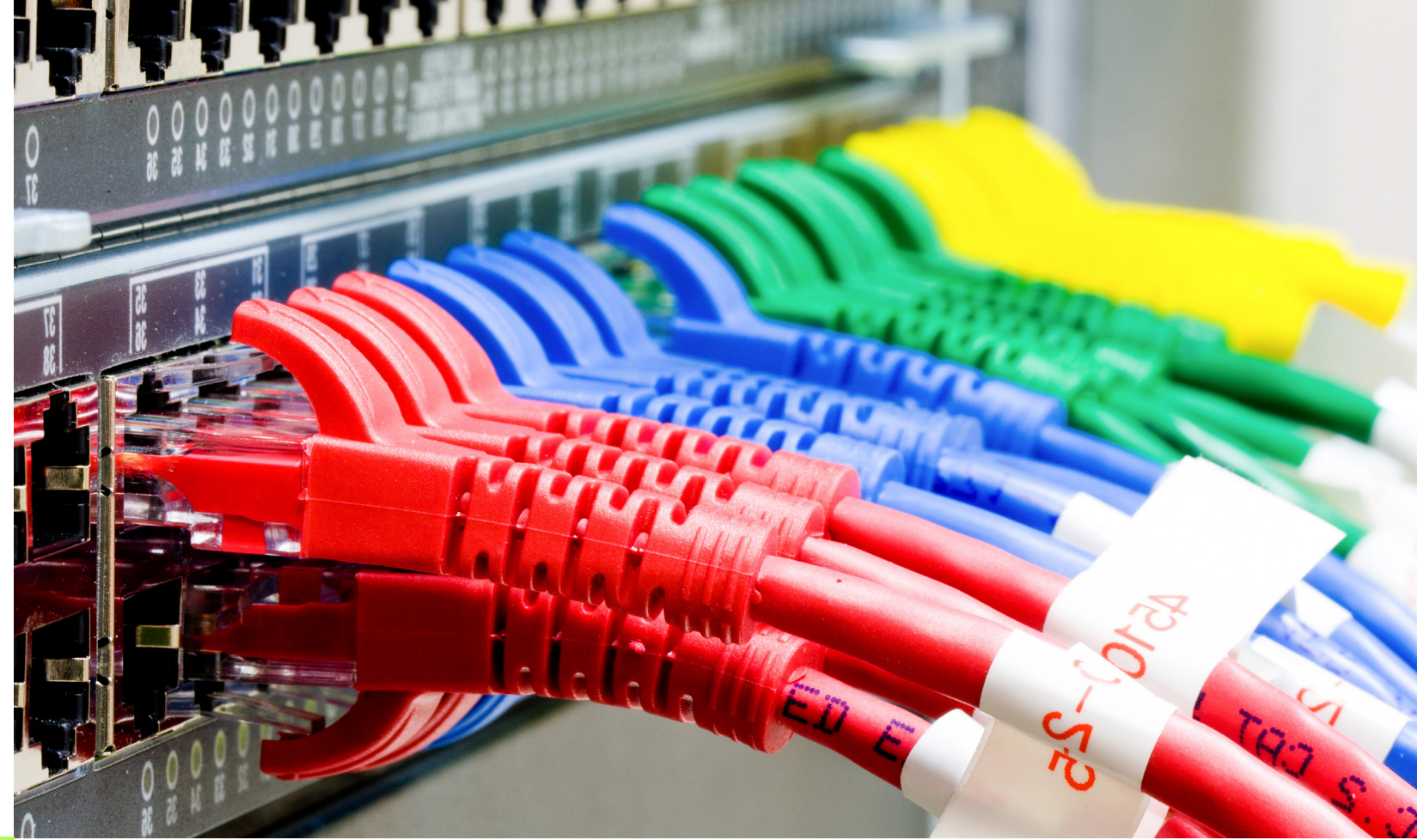
Other FY17 outreach activities included:

- Partnering with the Colorado Technology Association (CTA) in the annual Colorado Tech Tour and meeting with tech companies during the five days on the road, hitting Colorado Springs, Frisco, Vail, Grand Junction, and Fort Collins.
- Leading an IT economic development trip to the Northern California area with Governor Hickenlooper, focusing on cybersecurity and announcing the future home of the National Cybersecurity Center in Colorado Springs. This was a wonderful opportunity to showcase Colorado’s cybersecurity assets that help support companies already doing business in Colorado.
- Partnering and participating with local schools, universities, and nonprofit programs centered around building tech talent and internship career opportunities in the technology industry such as CareerWise.

FirstNet Colorado (FNC)

As part of the ongoing effort to bring cutting edge technologies to our state's first responders, the FirstNet Colorado team continued to work with local and state public safety agencies (86 outreach events) to plan for and implement the Nationwide Public Safety Broadband Network (NPSBN). Established in 2012, the First Responder Network Authority (FirstNet) was created to coordinate with state and local governments to plan and design the NPSBN, a dedicated 4G LTE wireless broadband data and cellular voice network for use by public safety first responders. Initial planning and outreach efforts are supported through the State and Local Implementation Grant Program (SLIGP), and in FY14 Colorado was one of the first five states to receive this grant allocation.

2017 was a busy and exciting year for the FNC team as the national procurement was completed, which initiated the key processes necessary for network implementation. The FirstNet legislation requires that each state eventually make a decision to opt-in to the national plan or develop its own alternative plan for implementation. In March 2017, OIT's FNC team developed and released a Request for Proposal (RFP) to seek proposals from the private sector on alternative plans for Colorado's network. This effort is critical as it will allow Colorado stakeholders to understand the options for network implementation with the ultimate goal focused on the best solution for Colorado's first responders. Additionally, the FNC team coordinated the review and feedback process for the national plan submitting more than 140 comments from individual stakeholders across the state. When the final state plan is released in the fall of 2017, the FNC team will ensure both options are fully vetted and support the decision-making process.



Broadband

Although the State of Colorado does not directly provide broadband services, OIT leads the effort to coordinate and develop solutions throughout the state to bring broadband connectivity to the entire state. In 2017, the Governor established the State Broadband Office (SBO) within OIT and hired an Executive Director to focus solely on the broadband effort. The SBO continued to coordinate the statewide effort with both state and local entities, and supported the Broadband Deployment Board's (within the Department of Regulatory Affairs) process that awarded \$2.1 million dollars in grants to bring broadband to approximately 4,500 homes throughout the state. The Office also worked with stakeholders from the executive and legislative branches as well as local and private sectors to allocate an additional \$9.45 million to the fund for additional broadband grants. In conjunction with the Department of Local Affairs, the SBO continued to support the regional planning efforts that has seen more than 25 regional and local broadband strategic plans completed.

The SBO was also successful in implementing the Kid's Link Colorado initiative which is focused on ensuring all Colorado schools meet national connectivity standards. Working with the national organization, EducationSuperHighway, the team worked with local school districts and regional Boards of Cooperative Educational Services (BOCES) to maximize the impact of the federal E-rate program that provides support for broadband services to schools. In one example of success, local school districts on the eastern plains developed a joint purchasing consortium that saw some districts realize a 70 percent decrease in their connectivity costs.

Awards & Recognition



Governor John Hickenlooper
*Elevating technology and positioning
Colorado as a leader in state IT*



Barbara Brohl
*Executive Director, Department of Revenue
GoldenGov: State Executive of the Year*



*SIPA Micro Grant of \$6,500.00 to OIT for the development of
an app to empower Colorado middle school-aged children to
better understand the effect of sharing information through
digital media and Cybersecurity*

Brandon Williams
*Chief Digital Transformation Officer
State Up & Comer*

Deborah Blyth
*Chief Information Security Officer
State Cybersecurity Leader*



Suma Nallapati
2017 Top 25 Most Powerful Women

Dannette Matthis
*Deputy Chief Customer Officer
State Leadership Award*

Summary

OIT strives to stand above all other IT organizations both private and public, by delivering cutting edge technology in an effective, efficient and elegant manner. This means, maintaining the right balance between the equally important maintenance activities that are often referred to keeping the lights on while implementing newer, more cost-effective and sustainable software, hardware, systems, applications, and services. In order to accomplish this task, we strive to improve our organization by first improving our employees. Through learning development and a new rewards and recognition program, we can recognize the talent we have with our employees.

In FY18 we will continue in our efforts toward continuous improvement by Future Proofing OIT with alignment in areas of DevOps, Agile, ITSM, LEAN/Six Sigma and PMBOK®⁹ coordinated through a centric Centers of Excellence approach. We will continue to focus on our work to make broadband available across Colorado through collaboration with the public and private sector. And we will continue to work toward providing Colorado's residents and businesses with seamless access to the services, information, resources, and support provided by the multiple state agencies in a one-stop portal that is accessible at anytime, anywhere, and from any device.



⁹ PMBOK® - or the Project Management Body of Knowledge - is a set of global standards, terminology, and guidelines for effective project management.

Appendix A - OIT FY17 Organizational Framework

Executive Leadership Team (ELT)



Appendix B - The 4 Disciplines of Execution

The four disciplines, which specifically target the routine and behavioral change necessary to drive organizational improvement, are:



Discipline of Focus: Wildly Important Goals (WIGs)

Focus on the major areas where change can make the largest impact

Lag measures let you know if you've achieved the goal

Show the relationship: From [X] to [Y] by [when]

Example: Reduce weight from 150 to 140 pounds by 8/1/15



Discipline of Leverage: Act on Lead Measures

Lead Measures are high-impact things the team must do to impact and reach the goal

Must be predictive and influenceable

Example: Go to the gym at least twice every week and consume a maximum of 2,000 calories per day



Discipline of Engagement: Keep a Compelling Scoreboard

Provides a clear and widely visible display of progress

Example: Keep a diary that includes calories consumed per day, gym activities and weight



Discipline of Execution: Create a Cadence of Accountability

Holding each other accountable regularly and rhythmically through regular meetings

Example: Discuss weight loss activities with a trusted family member or friend who will provide honest and direct feedback

Appendix C - FY17 Playbook Initiatives

OIT selected 17 enterprise initiatives to support the four WIGs, several of which span across one or more fiscal years.

Mission-Critical Foundation

INITIATIVE	STATUS
24/7 Security Monitoring The OIT Security Team will leverage managed services to support 24x7 monitoring of the state network traffic. This will enable the Security Operations Center staff to expand its impact and capabilities. It will improve overall state security, visibility, response time, and detection of security incidents.	Completed
Application Lifecycle Management Process and technology are being put in place to track all state-owned software applications from initial planning through retirement. This will give customers a clearer picture of the number of applications in their agency, the cost associated with the applications, and a roadmap for application replacement, updates, and/or decommissioning. This initiative was generated from the FY15 Eliminate Redundant Applications Decision Item.	On Track
Backup Colorado Phase II The goal of Backup Colorado is to implement a robust, standardized, statewide backup and disaster recovery solution for all critical applications supported by OIT. In addition to bringing Colorado up to federal, state, and agency security requirements, the project will reduce the risk of data loss and the impact of downtime on customer operations.	Completed
Database Monitoring Implementing a solution to monitor all state databases will provide OIT with proactive visibility into and analysis of database environments. The solution will provide our customers with a reduction in data loss, preventative measures for failing databases, and long-range planning for database storage. To minimize cost, OIT is seeking to utilize existing tools to develop a solution; however, if existing tools do not meet functional needs, OIT will request FY19 funding.	On Track
Network Monitoring Implementation of a network monitoring tool across all supported agencies will give our network teams the ability to manage the agencies' network devices and users. They will be able to monitor and resolve faults, availability, and performance issues, as well as view performance and availability statistics for all monitored elements, among many other features. The initial deployment will monitor network segments and devices; it will be configured to monitor servers and applications.	Completed
Systems Monitoring Existing deployment of operational monitoring has been migrated to a new environment that allows for more robust capability and scope of coverage across the enterprise.	On Track

Advancing Technology

INITIATIVE	STATUS
<p>Active Directory Consolidation Active Directory (AD) consolidation is being accomplished with virtualization technologies creating a centralized domain from all the disparate domains. This centralized domain has access to all users allowing for centralized management of users and other AD objects like groups. A standardized AD across the state enterprise is necessary for OIT to help our customers implement the most modern technology solutions at the lowest cost, for example Enterprise Wireless. It will also enable an enterprise directory that includes the email addresses and phone numbers of all executive branch agencies regardless of email system. Funding is available through a Decision Item until FY18.</p>	On Track
<p>Advanced Security Analytics As part of OIT's Secure Colorado initiative, OIT looks to improve security incident preparedness and intelligence with the use of a visualization tool. Visualization tools heighten an organization's ability to detect and respond to attempted cybersecurity attacks. This initiative is funded by an FY17 Decision Item.</p>	On Track
<p>Enterprise Application Consolidation The statewide consolidation of existing and new applications onto standard enterprise platforms will create a simpler and easier end-user-experience, reduce the long-term cost of maintaining redundant applications, and strengthen OIT's support capabilities.</p>	On Track
<p>Enterprise Content and Workflow Management To streamline process and eliminate overhead, OIT is evolving the state's ability to administer digital content throughout its lifecycle. This will allow agencies to create, edit, review, and publish electronic text. Additionally, automating workflows improves repeatable end-user experience and ease of tracking process improvements and operational metrics.</p>	On Track
<p>Endpoint Management The Systems Center Configuration Manager (SCCM), allows administrators to manage large groups of Windows-based computer systems. This provides OIT support staff with the ability to remotely discover, track, patch and image equipment and ultimately will provide a managed inventory of computer assets across the state. The tool has been implemented in nine agencies and will be implemented for the remaining agencies (the Governor's Office, OIT, History Colorado, and the Departments of Military & Veterans Affairs, Natural Resources, Personnel & Administration, Public Health & Environment, and Revenue) by FY18.</p>	On Track
<p>Identity Management OIT is establishing a centralized system for secure access, authentication, authorization, and user account administration for all systems managed or supported by OIT. In addition to significantly speeding up OIT's delivery of access control and on-boarding requests, we expect a reduction in the risks and costs associated with duplicative accounts.</p>	On Track

<p>IT Service Management EcoSystem We will continue to work on OIT's suite of interconnected systems and databases across the state that deliver business solutions through workflow automation, reporting mechanisms and processes. This EcoSystem will enable a consistent customer experience across enterprise service offerings through an improved customer-facing web portal.</p>	On Track
<p>Single Sign-On Beginning in FY17, OIT will offer agencies the opportunity to integrate their many business applications onto a single interface portal. Single Sign-On technology will allow state employees access to multiple applications with a single username and password. This scalable solution offers a safer and more efficient way to navigate the applications they use. Single Sign-On will be rolled out in two phases. Phase I will identify applications that are domain-wide. In Phase II, OIT will work with each agency to identify their needs and implement the service.</p>	Completed
<p>Test Automation An automated application testing system will be available as a service to customers in spring 2017. This will lead to more efficient and accurate application testing and allow testing staff to focus on more complex testing tasks. We can expect to see a reduction in the number of application defects, faster application development and change timelines, and reduced technical risk.</p>	On Track

Next Generation Solutions

INITIATIVE	STATUS
<p>FirstNet Prepare the Governor and FirstNet Colorado Governing Body for opt in / opt out decision for Colorado's FirstNet implementation.</p>	On Track
<p>Colorado Mobile App OIT is leading an effort to create a mobile portal that will give residents, visitors and businesses seamless and interactive access to state services, information, resources, and support at anytime, anywhere, and from any mobile device. The portal will reduce the need for user duplicative data entry and provide a protected entry point into the state.</p>	On Track

FY17 Annual Report

Enriching the citizen experience at every digital touchpoint



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