



Office of Information Technology
FY 2014-15 Budget Change Requests



COLORADO

Office of Information Technology

Priority: R-1
Long Bill Restructure
FY 2014-15 Change Request

Cost and FTE

- The Office of Information Technology requests a realignment of its appropriations structure in the annual Long Bill consistent with the method IT funds are appropriated in Departments. This request does not increase spending authority or FTE.

Current Program

- The Office of Information Technology (OIT) provides services and support to all 19 Executive Branch Departments and each branch of the Colorado State Government. For FY 2013-14 OIT was appropriated \$141,484,954 and 920.0 FTE to provide these services.
- OIT provides financial reporting and rates for services to all Departments, OSPB, JBC, the Federal Government, and the Information Technology Oversight Committee.

Problem or Opportunity

- The current Long Bill structure largely predates OIT's consolidation and does not align with OIT's current organization, service delivery, or billing structure.
- The present structure inhibits OIT's ability to effectively use financial and personnel resources.
- The current True-Up process can result in the need for negative appropriations.

Consequences of Problem

- Senior management is unable to make budget-based decisions because their service portfolios are in multiple appropriations lines, which are shared with other senior management.
- Budget and accounting have increased opportunities for errors because services and appropriations are not in alignment. This has a spillover effect on the ability for customers to understand the OIT rate structure on specific services.
- The current structure does not allow for expansion of services or best utilization of funds because of the forced division between personal services and operating.
- The structural problem inhibits the ability for OIT to act quickly when specific needs are identified because of the barrier to utilizing personal service vacancy savings to purchase equipment during an emergency or unforeseen event.

Proposed Solution

- Restructure OIT's Long Bill format to be more in line with existing operations which supports OIT's strategy for IT service management, particularly with the inclusion of program lines.
- Restructure the Common Policy line items in department appropriations to consolidate from five IT lines to a single "Payments to OIT" line.
- The restructuring of the requested line items will enable OIT to meet the changing needs of its customers while providing transparency through regular reporting.
- This budget neutral solution combines small program appropriations with the services supported, and otherwise aligns budgets by organizational structure and services provided.
- Outcomes will be measured through visibility in reporting and rate calculation.
- Provide relevant and reliable data to support annual planning, budget, and reporting.

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Office of Information Technology

Priority: R-2
Secure Colorado Phase II
FY 2014-15 Change Request

Cost and FTE

- The Office of Information Technology requests \$4.1 million Reappropriated spending authority beginning in 2014-15 for the Information Technology Security Program.

Current Program

- This budget request directly supports Secure Colorado Phase II, the second of the State's three-year information security and risk management strategic plan. This program supports the State's enterprise cyber security program and protecting the State's collection of data.
- The Office of Information Security Program is the single state source for cyber security awareness, monitoring, and defense. This program supports the State's enterprise cyber security program and protecting the State's collection of data. The mission of the OIS is to safeguard the state's information assets and citizen information against unauthorized use, disclosure, modification, damage, or loss.

Problem or Opportunity

- Key security equipment has reached end-of-life and needs to be replaced. / The current IT infrastructure, tools, and resources are not sufficient to protect the State from the more than 600,000 daily attacks currently hitting systems and are no longer sufficient for new, more advanced attacks.
- Funding for information security has not been sufficient to implement industry recommended critical security controls, meet state and federal regulatory requirements, or maintain an appropriate level of risk.

Consequences of Problem

- Failure to refresh the State's core security infrastructure and implement critical security controls will result in increased network and system downtime, data loss, and potential fraud and abuse.
- Funding is required to achieve the goals contained in Secure Colorado, the State's three-year strategic plan for addressing the evolving cyber threat and reducing risk, fraud, and abuse.

Proposed Solution

- Continued funding of the Secure Colorado Program will provide for new hardware to refresh/upgrade firewalls; refresh/upgrade the State's domain name servers; and procure network traffic analyzers, access control appliances, and incident detection and response tools.
- New software – application layer monitoring and defensive software to identify and stop layer 7 attacks and outages (a more sophisticated and less identifiable type of attack). Cyber threats to Colorado include attacks or threats to data, applications, host servers/network, internal networks, perimeter, physical attacks, and policies/procedures/awareness.
- Procure managed security services (contractors) to install, tune, and monitor security infrastructure.

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COLORADO

Office of Information Technology

Priority: R-3
Eliminate Redundant Applications
FY 2014-15 Change Request

Cost and FTE

- The Office of Information Technology requests \$2,960,000 in Reappropriated funds in FY 2014-15, and \$1,985,000 in FY 2015-16 to eliminate redundant applications existing throughout the state to standardize, consolidate, and/or retire similar applications residing in multiple Departments.

Current Program

- OIT supports over 1,200 different applications statewide; as defined by State agency program areas, over 200 of these are deemed either “mission critical” or “essential.”
- 80 percent of OIT resources are dedicated to operating and maintaining legacy applications; this encompasses 640.0 FTE and \$56.0 million annually. Requested funding is 5 percent of this amount.

Problem or Opportunity

- OIT has the opportunity to provide the following: improve customer service and overall efficiency, given that current OIT staff is dedicated to maintaining old systems with aging technology that often fails.
- Reduce ongoing expenses for hardware, software, and maintenance within Agency program areas currently using “one-off” applications through migration to statewide enterprise solutions.
- Reduce business training and support requirements given streamlined and consistent user interfaces.
- Create the potential for State agency programs to configure and manage their own service offerings.

Consequences of Problem

- Many State agencies have antiquated technology and systems. They will need to bear the burden of improving such systems individually and repeatedly without an enterprise view of the solution.

Proposed Solution

- “Think Stately, Act Locally” – OIT will collaborate with 14 State agency partners to eliminate at least 120 redundant State agency applications through consolidation into enterprise solutions.
- OIT will partner with vendors and contractors to configure, convert, and confirm State agency program functionality, business process, and personnel. Services run in parallel until customer signoff.
- OIT will initiate a lean process project with each Department to collaboratively identify potential efficiencies, identify applications for retirement, identify applications for consolidation, current application support, and current life cycle stage of the application.
- OIT will develop an individualized State agency program plans to implement the Application Portfolio Management Roadmap, thereby achieving improved efficiency.
- OIT will receive Department approval of the roadmap and consent to retire or consolidate applications.
- OIT will provide a common database and user interfaces allow for streamlined business processes and resident interaction with State staff delivering services. Synergies identified for future collaboration.
- The request is for FY 2014-15 and FY 2015-16.

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Priority: R-4
Capitol Complex Network Resiliency
FY 2014-15 Change Request

Cost and FTE

- This request is for an increase in a state wide augmentation and upgrade of the Capitol Complex equipment connecting to the Colorado State Network (CSN) supporting the Governor's Office of Information Technology (OIT) Cloud Strategy and Enterprise Architecture (EA) initiative. The request is for \$660,000 in FY2014-15 and \$95,000 in ongoing annual operating expenses. Funds requested are to be re-appropriated, and are to be used for critically needed upgrades and maintenance of the CSN.

Current Program

- In June 2011 the Governor's OIT entered into a new partnership with CenturyLink to upgrade the state's aging wide area network, previously referred to as the Multi-Use Network (MNT). The new contract brings with it significant cost savings, 21st century technology, and notable improvements to the statewide network.
- The CSN offers bundled services inclusive of network services (MPLS, MOE, Wave, Ethernet, etc.) as well as WAN CPE (Customer Premise Equipment), maintenance, and CSN network monitoring and management.

Problem or Opportunity

- There are areas in both the wide area network (WAN) and the new Virtualized Multiservice Data Centers (VMDC) of the CSN, within the Capitol Complex, requiring attention to mitigate implementation flaws, primarily single points of failure of key network equipment, the upgrade of key existing equipment to support new features and services required by the WAN and VMDC's, and the appropriate service and maintenance support for key hardware and software components.

Consequences of Problem

- OIT estimates the failure of a single non-redundant key network component without appropriate maintenance can cost the State over \$184,000 in revenue and repair due to a single 12 hour failure.
- Not upgrading key existing equipment will delay the migration of some agencies to the vBlock™ Infrastructure Platform and possibly stop the migration of others. This will result in anticipated total cost of ownership (TCO) reductions to not be delayed or even eliminated.
- The ongoing process of retrofitting older equipment for modern requirements of the CSN results in extreme inefficiencies of OIT personnel.
- Network service availability and performance problems will increasingly produce negative and more severe impacts to the citizens of Colorado.

Proposed Solution

- Proceed with detailed project planning for the phased replacement of critical equipment, within the Capitol Complex area, and to evaluate and begin urgent phased augmentation of major single points of failure of the CSN.
- Complete enterprise network management system (NMS) contract and begin immediate deployment of new toolsets.

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COLORADO

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Priority: R-5
Broadband Mapping and Planning Services
FY 2014-15 Change Request

Cost and FTE

- This request is for \$428,866 General Fund to refinance and fund an existing 6 FTE to continue the broadband mapping, planning, and integration efforts begun through the federal State Broadband Initiative (SBI) Grant program. That grant ends October 2014 and this request would be effective at its conclusion. This request will annualize to \$554,347 General Fund in FY 2015-16 and beyond.

Current Program

- Currently the SBI programs funds 7.5 FTE to map broadband availability throughout the state, develop statewide standards for public safety, assist local governments to develop and implement regional broadband plans, integrate broadband technologies throughout various State and local agencies, and promote and coordinate Distance Learning opportunities across the State. The program works with over 150 private broadband carriers, 20 public safety entities and local officials in over 50 counties.

Problem or Opportunity

- Broadband has become an essential infrastructure for economic development, healthcare, education and public safety. Many areas in Colorado lack the sufficient broadband capacity or coverage to effectively deliver on these services. Continuing the current program is essential to make necessary policy decisions regarding broadband and support broadband expansion across the state.
- The current federal grant funding ends in October 2014.

Consequences of Problem

- If this work is not continued, the state will be forced to make critical public policy decisions without clear and accurate data while many parts of Colorado will continue to lack adequate broadband.

Proposed Solution

- The proposed solution is to continue and refine the efforts started through the SBI program. The requested funding will allow OIT to further customize the program to meet Colorado specific needs.
- The specific positions impacted by the expiring federal grant include 6.0 FTE:
- Broadband Communications Manager (1.0 FTE) to continue the planning efforts with local, regional and state level governments;
- 3.0 FTE to continue and expand the broadband mapping efforts and also provide GIS services;
- Address Data Coordinator (1.0 FTE) to continue the efforts to develop accurate address data for both state and local public safety needs; and
- Broadband Architect (1.0 FTE) to develop technical and architectural standards for broadband.

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Cost and FTE

- The Office of Information Technology requests \$3,455,000 Reappropriated Funds in FY 2014-15 for software, licensing, training and professional services to complete and implement a comprehensive enterprise service management system.
- OIT further requests \$645,000 to finish implementation and pay for maintenance and support in FY 2015-16. \$345,000 per year (a 6% increase) would be required for ongoing, for software maintenance and licensing starting in FY2016-17.

Current Program

- The Statewide IT Management program is responsible for the over sight, management, and centralization of IT services with the state government.
- OIT owns eight of the 12 essential IT Service Management Ecosystem components. The existing eight require upgrade and the remaining four require purchasing. The goal is to fully integrate all 12 into a fully leveraged IT Operating Model. This model defines and provides data for the services provided, resource planning, rate setting for common policy, and full asset management. This complex system describes and classifies the assorted personnel, technical, and workload data of the operations and domains in order for OIT to accomplish its mission.

Problem or Opportunity

- A subset of OIT Service Management Ecosystem components have been purchased and implemented as standalone; these components do not “speak to each other” providing a frustrating customer experience.
- No single repository for data exists which creates an inability to quickly respond to requests and an inability for users to generate reports automatically. As a result, manual processes and inefficiencies abound within OIT and State agencies.
- As a service provider, OIT established a Service Catalog where agencies request services; however, that Service Catalog is not automated and does not link with other systems to provide seamless deployment and tracking (including FTE, hardware, software, operations, and maintenance).

Consequences of Problem

- OIT will continue to face challenges reporting expenses, resource allocation, common policy billing, asset management, and service delivery with limited Department visibility into OIT data.

Proposed Solution

- Purchase of the four remaining “OIT mission control” components; fully configure, populate, and implement a standardized and process-driven IT Service Management (ITSM) Ecosystem (software tools linking disparate IT systems together) to drive operational efficiencies, link financial information directly to services, and improve overall service delivery.
- Integrate OIT systems across business programs and processes enabling OIT to deliver a standardized customer experience, streamlined timelines, and increased transparency.
- Create forecasts and plans directly tied to State agency strategies and OIT resource allocation.
- A single data repository links financial data to assets and services, and to State agency programs.
- Linked tools and processes make IT budgeting easier, standardized, and transparent.

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COLORADO

Office of Information Technology

Priority: R-8
Digital Trunked Radio System (DTRS)
Operations Increase
FY 2014-15 Change Request

Cost and FTE

- The Office of Information Technology requests an ongoing increase to enhance the statewide public safety two-way radio communications. The request would increase funding for the Digital Trunked Radio System (DTRS) by \$1,116,397. The funds will be used for critically needed repairs, maintenance, scheduled replacement and software support for the DTRS.

Current Program

- The DTRS provides two-way radio communications for over 1,000 local, state, tribal and federal public safety agencies across Colorado. All Colorado citizens and visitors are served by the DTRS each time a 9-1-1 call is placed and police, fire and EMS services are requested. There are currently over 70,000 first responders across the State carrying radios utilizing the DTRS for emergency and non-emergency operations and communication interoperability 24-hours a day, 365 days a year.
- OIT administers the DTRS; regional engineers and technicians provide repair service, maintenance and monitoring of the DTRS, including 221 transmitter sites and microwave connectivity. The base level funding for this program is: Personal Services - \$3,727,491; Operating Expenses - \$183,231, Training - \$22,000; Utilities - \$183,768; Local Systems Development - \$121,000; and Indirect Cost Assessment - \$67,827.

Problem or Opportunity

- Current operational funding fails to meet minimum requirements for sustaining the daily operations of critical public safety communications network. The DTRS has grown exponentially over the past decade due to population increases and demand for expanded and improved public safety radio coverage. While the DTRS has continued to grow, the funding has remained the same level for over a decade. This request in funding will address the current budgetary shortfall for minimum operations and will allow OIT to initiate replacement of some of the obsolete electronic components of the system.

Consequences of Problem

- OIT is statutorily required to provide a public safety radio system to State public safety agencies - State Patrol, Corrections, Natural Resources, Transportation, Judicial, and others. OIT will be unable to meet this mandate, resulting in potential critical mission service outages that could, inevitably, result in catastrophic communication failures of the communications.
- The current funding shortfall has resulted in some local agencies losing of confidence in the State's ability to maintain the DTRS. Some local agencies are splintering off from the DTRS, which is creating a dangerous loss of public safety first responder ability to achieve statewide communications interoperability (the ability of police, fire and EMS first responders to communicate with each other on demand, and without dispatch intervention). As a result, there will be silos of local effort to create and sustain local radio systems not integrated with the DTRS.

Proposed Solution

- Develop project plan to address phased replacement of critical electronic components and renew expired software licenses for monitoring, asset and time management; re-instate Motorola Technical Support and Security Update Service agreements for Zone Master Sites.

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COLORADO

Office of Information Technology

Priority: R-8
IT Technical Development
FY 2014-15 Change Request

Cost and FTE

- The Office of Information Technology (OIT) requests \$256,620 Reappropriated Funds beginning in FY 2014-15 for the purpose of IT technical training and certification for OIT staff.

Current Program

- This budget request directly supports the Governor's Office of Information Technology (OIT) that is responsible for the operation and delivery of information and communications technology services and innovation across all Executive Branch agencies in the State of Colorado as well as the customers of those agencies, the citizens of Colorado.

Problem or Opportunity

- Employees are operating in a new work environment characterized by increased complexity and interdependence. Key equipment and technology has reached the end-of-life stage, and new technology is in demand. OIT has experienced on average 16% turnover of skilled information technology (IT) professionals and 27% of OIT professionals are eligible to retire.
- Employees lack the education and technical experience to build and maintain State systems with the new technology and security needs, but also lack the education and experience to manage the employees who work on them. Funding for information technology has not been sufficient to implement industry recommendations for professional development. Currently U.S. organizations and businesses spend \$1,182 per employee as reported by the American Society for Training & Development.

Consequences of Problem

- The lack of certified professionals' results in OIT not being able to meet contemporary and future technological and security needs to effectively and efficiently serve customers.
- Agency customers will continue to experience delays and service gaps as agencies transition more systems, operating platforms and technologies.

Proposed Solution

- OIT requests \$256,620 annually for learning and development including 23 technical trainings, certifications and re-certifications for approximately 60 percent of OIT's workforce.

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