



Information Technology Strategic Plan

Governor's Office of Information Technology (OIT)

Bill Ritter, Jr.
Governor

Michael Locatis
Chief Information Officer



Message from the State CIO

March 2008

Dear Citizens of Colorado:



The Governor's Office of Information Technology is pleased to present the 2008 – 2011 Strategic Plan for the State of Colorado. This plan outlines the key strategic initiatives that my team has selected as the focus of State Information Technology for the next 4 years.

I believe our vision for the State of Colorado's Information Technology function can be fully realized by closely adhering to the action plan described further in this report. By leveraging our Statewide Information Technology team of experienced individuals and with the support of both the Executive and Legislative Branches, I am confident that we will provide improved and more secure service to the citizens of Colorado.

The Governor's Office of Information Technology has closely studied the operations of information technology in Colorado and my office has worked with the General Assembly, departmental CIOs, and the IT professionals to put forward legislation that will greatly improve this operation. SB08-155 seeks legislative changes to allow OIT more insight and management into the IT functions and endeavors of the State of Colorado. When this legislation is signed into law IT functions within Colorado will start a transformation and will be better positioned to serve the citizens of Colorado.

Sincerely,

Michael Locatis
Chief Information Officer
State of Colorado



Executive Summary

“As Governor, I will ensure that we will take advantage of improvements in technology, purchasing, and business processes. I will find areas that can be streamlined, made more efficient or eliminated.” *Governor Bill Ritter Jr. “Colorado Promise”*

Governor Ritter’s bold Colorado Promise continues to outline the strategic direction for the State and consistently identifies technology as a critical component within several of the key initiatives. Technology is a common, vital and necessary element for each of the following eight tenants of the Colorado Promise:

- Improve education
- Create a Colorado health plan
- Stimulate the economy
- Establish Colorado as a leader with renewable energy
- Modernize Colorado’s transportation infrastructure
- Ensure ample and clean water for all citizens
- Efficiently and effectively manage fiscal resources

Each of these initiatives includes a technology component of some type, whether it is by providing accurate and timely data, by implementing power management tools for our PCs and office equipment, or by ensuring that critical services are available to the citizens of Colorado. Effective management of Colorado’s investment in technology solutions and personnel is clearly a critical objective going forward.

We believe there are five major strategic objectives which we must focus upon and deliver this year. These strategic objectives and the supporting actions outlined in this plan will help realize the Governor’s Colorado Promise while reducing risks, thereby improving service delivery to counties and citizens. We believe Colorado must:



1. Secure and protect IT assets

Through effective asset management, implementation of better enterprise architectural standards and coordination with the Chief Information Security Officer, we will identify and prioritize the key risks facing the State and actively mitigate them. This includes actively improving critical system disaster recovery plans.

2. Optimize spending for IT decisions, projects and technology

Reducing waste, improving IT procurement and contracting from a centralized perspective are critical in helping the State manage fiscal resources more effectively.

3. Effectively manage IT projects

Improving program governance is absolutely essential to help departments realize the benefits of IT projects. We will complete an inventory of project activity and prioritize those critical projects which provide the best value to our citizens. We will enable more enterprise level management to better leverage capabilities across the State.

4. Improve enterprise service delivery

We believe we can break down departmental silos and enable more collaboration across departments to improve delivery of enterprise services for constituents. This includes a focus on the State Internet Portal, helping to enable statewide broadband connectivity, and completing the statewide communications system.

5. Improve collaboration and innovation

Innovation and partnership with private enterprise are critical elements for Colorado to develop more effective ways of leveraging technology across the enterprise. Increasing collaboration and involvement from the private sector will help facilitate the development of new ideas and concepts to help meet the demands of the Colorado Promise.

The challenges facing us are significant, but we believe this strategy will help realize the Colorado Promise and establish Colorado as a leader in the development, implementation and management of innovative and effective IT solutions.



Mission

To increase the effectiveness of government through the use of shared information and technology. Information technology will be used to maximize the efficiency of service delivery and will operate as a seamless enterprise, delivering consistent, cost-effective, reliable, accessible and secure services that satisfy the needs of the citizens of Colorado, its business communities, and its public sector agencies.

OIT

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Strategic Objectives and Action Plans

1.0 Strategic Objective: Secure and Protect IT Assets

1.1 Conduct Enterprise Asset Management Inventory

While departments are managing their own IT assets independently, there is an insufficient view of IT assets across the statewide enterprise. OIT will work with departments and agencies to conduct an inventory of IT assets, including software licenses, license versions, and hardware. This asset inventory is critical to fully understand the current environment and identify key security issues and risks.

1.2 Create New Asset Management Policies & Standards

The State of Colorado will create and adopt new policies and standards that support asset management as the guidelines for processes used to execute everyday activities. Policies and standards are critical to enterprise environments, as IT managers must cope with not only a large number of systems, applications, and end-users, but also with the complexities of fragmented point solutions and a rapid pace of change.

1.3 Continue to Improve Cyber and IT Security

OIT will continue to work closely with the Office of Cyber Security to protect IT assets from threats and remediate vulnerabilities as it is imperative to know both where an asset is physically located and what supporting data exists for that asset. The State will track and monitor this data (which includes configuration information, version, ownership information, and classification of the asset) to drive security response plans and actions.



1.4 Continue to Standardize Enterprise Architecture

Enterprise architecture describes how an organization performs its work using business processes, information, people, technology and facilities. Once documented, this can serve as a reference point to manage the coordination of common business processes, information flows and supporting technology investments across all state departments. The State needs to leverage technology to boost the effectiveness and efficiency of service delivery (i.e., doing the right things) and to maximize the coordination of these technology investments (i.e., doing them the right way). Colorado will standardize a Statewide enterprise architecture as a means of connecting individual agency goals to a shared information technology strategy so the State can realize the return on its IT investment.

The overarching goal is to manage technology investments from a statewide approach which allows it to proactively capture economy-of-scale opportunities. The key results will be a reduction of the total cost of ownership for the State's existing technology. This enables an opportunity to reinvest savings, continue to drive greater cost reductions and provide better service to citizens.

1.5 Begin Enterprise Service Consolidation

Colorado needs to better leverage enterprise services across the state. Services such as data center management, voice and data network operation, Enterprise Resource Planning (ERP) services, Geographic Information Systems (GIS) services, and other services should be utilized across multiple departments more effectively. For example, currently there are over 30 data centers of varying sizes and capabilities across the State of Colorado. This is not optimal and consolidating the data centers in the state will reduce operating costs, improve service delivery, and help protect IT assets. Consolidation of these types of services has proven to be highly effective in other states and has resulted in a more effective and secure operation.



**2.0 Strategic Objective:
Optimize Spending for IT Decisions, Projects,
and Technology**

2.1 Establish New Budgeting Process


The State will begin the development of a new IT culture by changing the way budgets are prepared and adopted while establishing mechanisms to assess government performance to align spending with priorities. In addition, the State will focus efforts on volume pricing, leveraging vendor relationships and taking advantage of improvements in technology, purchasing and business processes.

2.2 Reform Enterprise Licensing & Buying

The State will investigate, refine and reform its enterprise licensing and buying practices to ensure that IT costs are not incurred unnecessarily. The State currently has purchasing agreements in place with some vendors, but they are not universally used and/or enforced. These reforms are intended to reduce the frequency of buyers purchasing software licenses outside of agreed upon pricing arrangements while minimizing the buying of hardware and systems in silos which results in overspending.

2.3 Improve Contracting Oversight

OIT will work to improve IT contract governance and oversight to ensure the State of Colorado is better represented with IT projects and services. Inadequate contracts with vendors create significant problems with many projects in the state.



3.0 Strategic Objective: Effectively Manage IT Projects

3.1 Continue to Implement Project Management Certification

All major IT projects are required to have skilled project managers whose experience fulfills the needs of a project's scope and risk. In addition, large high-risk projects will be required to fully fund and implement independent validation and verification (IV&V). The State will employ structured methodologies to manage a project's entire life cycle, including: requirements definition, system development, testing and quality assurance. Projects will be reviewed at their conclusion to highlight lessons learned and build a project knowledge repository.

3.2 Expand the Enterprise PMO

The Enterprise Project Management Office (PMO) is the organization charged with directly supporting agency IT projects through the application of standard processes, procedures, tools and techniques. The PMO will coordinate appropriate project management oversight on major IT projects. Additional resources (contractual and staff) will be used to provide these services throughout the state. A project management toolset will also be deployed consistently throughout the enterprise to enable effective project management at the agency/department level and effective oversight at the enterprise level.

3.3 Provide Enterprise Reporting on Large IT Projects

Colorado has a recent history of encountering problems with large scale projects. Status of all large projects (over \$1M) will be reported to OIT on a monthly basis, and OIT will provide frequent and on-going assessments for project performance and will act to mitigate risk of project failure or issues before they become problematic.



4.0 Strategic Objective: Improve Enterprise Service Delivery

4.1 Help Enable Statewide Broadband Connectivity

For Colorado's communities to thrive economically and socially, and to compete for jobs in the information market, it is critical that the government commit to spurring broadband deployment in all parts of the state. The State will partner with the private sector to help facilitate greater adoption of broadband internet access and ensure its availability to all Coloradans.

4.2 Complete Statewide Communications System

Effective and coordinated response to disasters and general emergencies is highly dependent on the effectiveness of a statewide communication network. This includes investments in technologies such as digital trunk radio. For the past several years, Colorado has focused on building a statewide communications system to allow for communities to tie into communications and enable officials from federal agencies and neighboring states to interface with the system during emergencies. The State will incorporate tools such as inter-operable radio systems and rural broadband access to provide our first-responders the resources these challenging times demand.



4.3 Better Leverage of the Statewide Internet Portal

Electronic government has been a key initiative for over a decade in Colorado State government. By establishing a robust Statewide Internet Portal to allow for “one-stop” customer access to all government information and services, we will begin to realize this goal. The official government website for Colorado, www.colorado.gov, was successfully deployed to provide a suite of commonly used services and to serve as a gateway to State-provided information. Whether individual citizens and businesses serve themselves or seek service from government staff that access the portal, this technology will help to maximize the services available through the electronic channel. This provides a consistent interface to users that is easily recognizable, secure and operationally efficient. The State will continue to focus on this initiative and will investigate the feasibility of integrating additional agency applications into the portal.

4.4 Improve Service Delivery to Customers

We have a multitude of customers who depend on State services including counties, citizens, local and Federal governments, and State employees. Many of these services are delivered through some vehicle of technology. One of our top objectives this year is to measure and improve the effectiveness of how these services are consistently delivered. Improving applications shared by the counties is a starting point for us as we work with county, State, and commercial entities to resolve the top issues with systems such as: CBMS, CSTARs, and HAVA. As noted above (critical action 4.3), leveraging the State Internet Portal is a critical step towards providing better information and services to citizens. Finally, by moving toward a centralized IT organization, there should be system and service level improvement for our constituents.



5.0 Strategic Objective: Improve Collaboration & Innovation

5.1 Continue Strategic Planning

Strategic planning will be approached as a continual process, not a single event. Our goal is to have an evolving strategic plan that incorporates the results of future research and planning. The State will not only review agency IT plans to ensure the strategic plan did not overlook key agency issues, but will also evaluate its current position by completing an IT infrastructure analysis on IT staffing and skills, systems, software and applications. We will use this information to create and maintain a baseline model of the IT infrastructure.

5.2 Establish Centers of Excellence for Key Competencies

The State will establish Centers of Excellence for key competencies to increase Statewide organizational efficiency, decrease technology costs and improve overall agility. Centers of Excellence will establish standards to help ensure infrastructure and data are appropriately integrated. Centers of Excellence will also promote improved cost control of technology deployments through the re-use of technology, processes and hardware across multiple applications.



5.3 Build an Executive Policy Board

The State will develop a new model for governing IT projects through the creation of an Executive Governance Committee which will identify department-level stakeholders who will work together to manage a portfolio of prioritized projects. This collaboration will help the State select and implement higher priority projects while fostering better inter-departmental cooperation.

5.4 Involve the Private Sector in Developing Innovative Solutions

Working under the direction of the Governor and in cooperation with the Office of Economic Development, OIT will harness the expertise and knowledge from the private sector to help identify solutions which can be used for the advantage of the State.