



State of Montana

**Strategic Plan for
Information Technology 2014**

This document is prepared under the authority of the Montana Information Technology Act of 2001. It is published biennially unless special interim plans become necessary.

STATE INFORMATION TECHNOLOGY SERVICES DIVISION
Ron Baldwin, Montana State Chief Information Officer
April 1, 2014

Montana Strategic Plans for Information Technology can be found at:
mt.gov - [Montana's Official State Website](http://mt.gov)

If you have any questions or comments on this plan, please contact:
Kyle Hilmer
Strategic Planning Manager
406-444-5476
khilmer@mt.gov



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
STATE INFORMATION TECHNOLOGY SERVICES
DIVISION



Steve Bullock
Governor

April 1, 2014

Fellow Montanans:

It is my pleasure to present the State of Montana 2014 Strategic Plan for Information Technology. This plan aligns with the administration's initiatives: better jobs, better education, and effective state government. We will use/leverage technology to address these areas by:

- Providing mobile access for our citizens and state employees.
- Prioritizing projects that deliver the most effective government services.
- Employing technologies make state service more accessible and secure.
- Sharing systems across agencies, Montana political subdivisions, and other states.
- Maximizing returns on IT expenditures.

We know our destination and the road we want to take to reach that destination. This plan is that road map. It describes the overall direction of information technology throughout Montana state government. Agencies will use it as their guide when they are prioritizing their IT investments and making decisions.

Technology plays a crucial role in all our daily lives. This is especially true for Montana state government. Our lives are better for our willingness to embrace advances in technology. However, we fully realize the benefits of technology only when it is well managed and secure. This strategic plan is the foundation for managing our technology and ensuring it delivers maximum value.

The right technology strategy for Montana is to focus on the services our citizens need, and then deliver those services in the most effective, efficient and secure manner.

This plan directly supports the State's strategic goals and business requirements. It is a guide through the complex issues and challenges that are part of effectively managing technology. The success of state government rests on our ability to meet the expectations of Montana citizens and businesses with thoughtful technology investments and manageable risks.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ronald P. Baldwin".

Ron Baldwin, State CIO

Table of Contents

Executive Summary	5
State Environment, Success, and Capabilities	5
IT Contribution and Strategies	6
IT Principles	7
IT Governance	8
IT Financial Management	8
IT Metrics	9
IT Services and Processes	9
IT Infrastructure, Staffing and Resources	9
Enterprise IT Initiatives	10

1. Executive Summary

Montana has three basic business drivers that shape the state's programs and IT strategies: jobs, education, and effective/efficient government. Most IT programs and projects will address only one of the three business objectives. The most frequent objective is usually effective and efficient government. New and enhanced IT systems normally generate savings in agency operational costs, or greatly enhance agency service or functions available to the public.

Montana's IT strategies are designed to directly support and contribute to the success of Montana's business objectives. Montana's IT strategies are:

1. Deliver network services that enable online education and remote access to state and local government services.
2. Deliver mobile access to state services for citizens, businesses and state employees.
3. Leverage standards, technical innovations and systems from other government entities.
4. Share systems, components and functionality across agencies, Montana political subdivisions and other states.
5. Utilize cloud, open source and existing systems; deploy custom built systems only when absolutely necessary.
6. Implement an enterprise cyber security program.

2. State Environment, Success and Capabilities

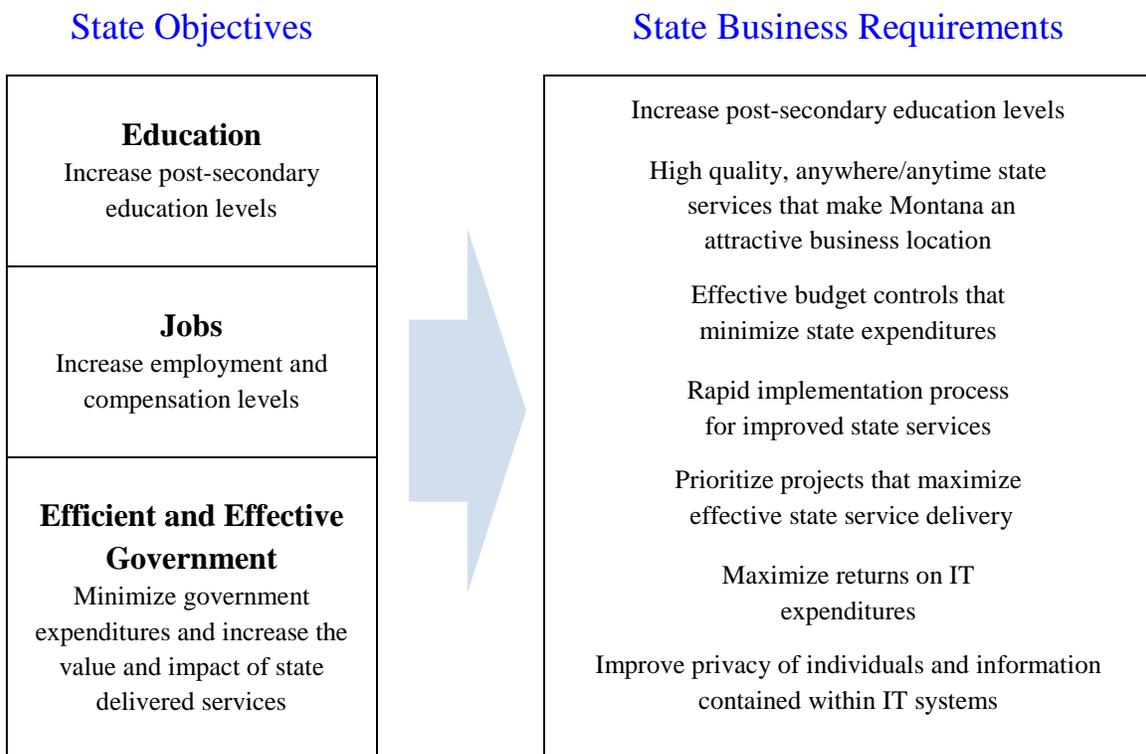
Montana weathered the recession better than the rest of the nation. Montana's unemployment rate has consistently outperformed other states, and the workforce demonstrates high rates of educational attainment, income growth, and increasing job opportunities. In late June 2013 the Legislative Fiscal Division projected almost a \$300,000,000 ending general fund balance for the FY2015 biennium. Montana's economy is healthy, but there is room for improvement.

Technology strategic planning must be based on the needs, goals, and business drivers of the leaders that manage State programs and priorities. Those business drivers have been identified as jobs, education, and effective/efficient government.

- **Jobs** - Montana's objective is to ensure job growth and private sector wage growth exceeds the national average. Montana added 10,700 jobs in 2012, a growth rate of 2.3% which exceeded national job growth. Private sector wage growth in Montana increased by 4.2 % in 2012; the second fastest wage growth in the nation. Additional details can be found in the 2013 Labor Day Report at: http://www.ourfactsyourfuture.org/admin/uploadedPublications/5314_LDR-13.pdf
- **Education** - Montana's objective is to increase the percent of Montana's population with a completed college certificate from 40% to 60% by 2020. In the previous three years Montana led the nation with an increase of 37% to 40% in higher education credentials. Currently 96% of Montana's labor force has a high school diploma, 4th in the nation.

- **Effective Government** - Effectiveness is the ability to produce better quality outcomes or higher value. IT can support this goal in two ways. First, by delivering value to state employees and programs. A \$100,000 IT investment that saves a state agency \$200,000 in personnel time or expenditures, or delivers \$200,000 in citizen benefits, would make the state more effective. Second, state IT organizations can reduce their own internal IT costs; reducing them to minimum levels while maintaining high quality service. The state’s objective is more effective government through both paths.

Montana’s goals and objectives lead directly to several state business requirements; requirements that must be met if Montana is to succeed. The state business requirements are the focal points around which the state IT strategy is built.

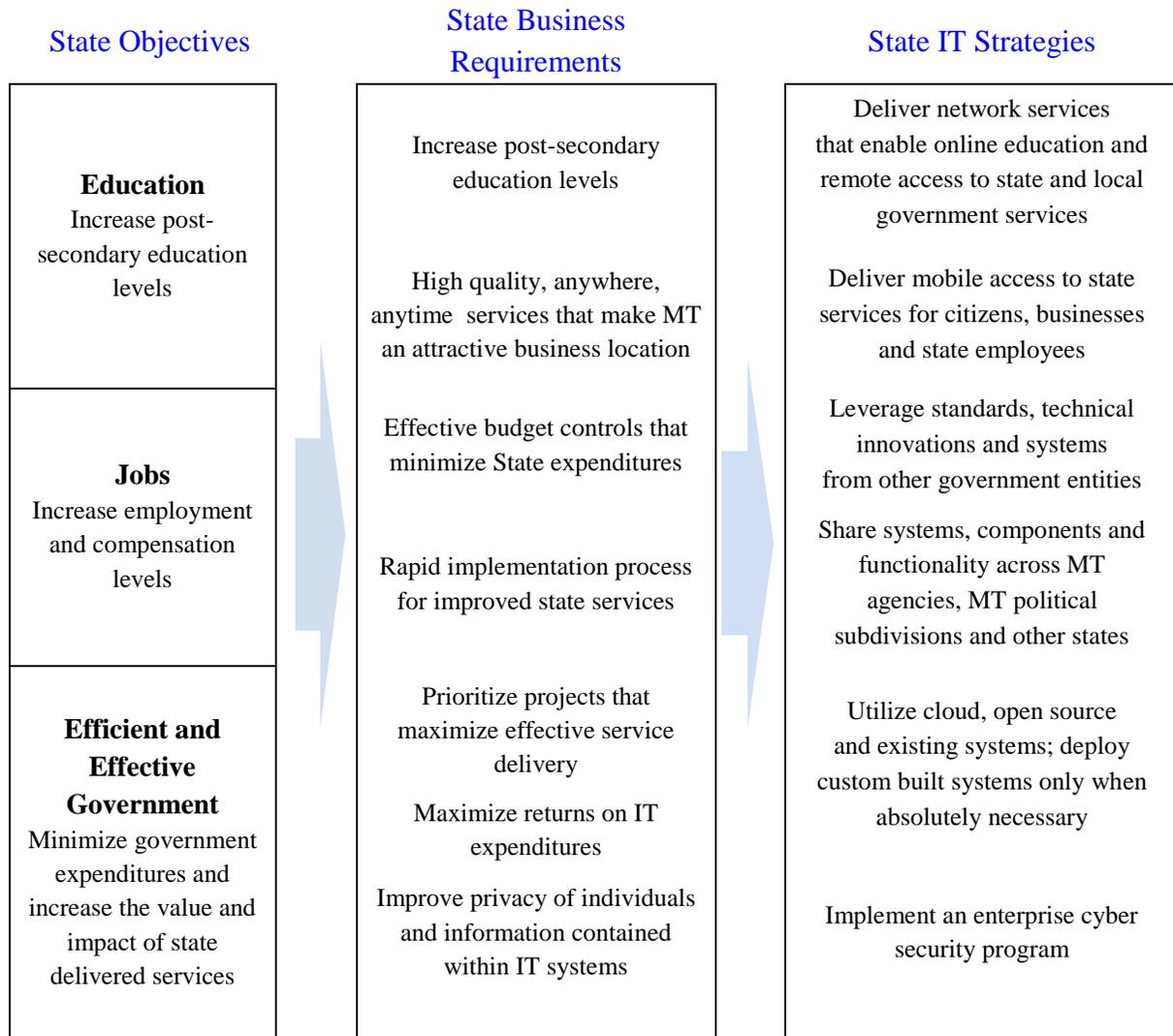


3. IT Contribution and Strategies

Montana’s IT strategy is designed to support the state’s primary strategies and business requirements. Not all IT programs and projects will address all of the business requirements, but all IT programs and projects will support at least one. Most IT programs and projects will focus on effective/efficient government. By its very nature a new or enhanced IT system will normally drive down agency operational costs or greatly enhance agency service or functions available to the public. Occasionally a new IT system will increase agency costs. This will be a conscious choice because the system benefits to state citizens and businesses will far exceed the state’s incremental IT costs.

Commerce, Labor and Industry, the Office of Public Instruction, and the university system will directly impact Montana jobs and education. Other agencies will have a secondary impact. But all agency IT organizations will have a direct impact on delivering a more effective and efficient state government. Agency IT services and systems will provide value by delivering faster, more informative services to citizens and business, and by reducing the cost of agency operations.

Montana’s IT strategy to contribute to Montana’s success has eight components; found in the tables below.



4. IT Principles

IT principles govern the decisions and operations of the state’s IT community. They provide touch-points and guidelines to ensure that correct decisions are being made; decisions that will provide the greatest value to Montana’s citizens. The majority of Montana’s IT principles have their roots in Montana’s Information Technology Act (MITA).

Montana's IT principles:

- Resources and funding will be allocated to the IT projects that contribute the greatest net value and benefit to Montana stakeholders.
- Unwarranted duplication will be minimized by sharing data, IT infrastructure, systems, applications and IT services.
- Montana will use shared inter-state systems to minimize IT expenditures, improve service delivery and accelerate service implementation.
- IT will be used to provide educational opportunities, create quality jobs, a favorable business climate, improve government, protect individual privacy and protect the privacy of IT information.
- IT resources will be used in an organized, deliberative and cost-effective manner.
- IT systems will provide delivery channels that allow citizens to determine when, where, and how they interact with state agencies.
- Mitigation of risks is a priority for protecting individual privacy and the privacy of IT systems information.

5. IT Governance

The state has established in law, by Executive Order and by Agency Executive Order, governance structures such as the Information Technology Board, the Statewide Interoperability Governance Board, the Electronic Government Advisory Council and the Information Technology Managers Council. The purpose of these governance structures is to ensure that the state's IT investments supporting the business needs of the agencies are done in a cost effective manner.

The state CIO and state agencies will work in a cooperative manner to strengthen these governance structures so they provide the framework for a deliberative approach to making IT investments that support the services the state provides to its citizens.

6. IT Financial Management

Agencies receive their IT expenditure authority from the legislature. IT funding sources include the state general fund, proprietary funds, fees, federal grants, etc. Most of the funding authority originates in an agency's biennial base budget with House Bill 10 providing supplemental capital funding for major IT projects and programs that cross biennium boundaries. IT line items in HB10 are managed by the Office of Budget and Program Planning (OBPP) with approval by the State CIO. SITSD is funded through a state proprietary fund and receives its revenue through chargebacks to agency customers.

Agencies will document and provide adequate justification for their major IT spending proposals to OBPP and the Department of Administration.

7. IT Metrics

The state recognizes the need to minimize IT expenditures while maximizing the return on IT investments. Establishing a value on our IT infrastructure of software applications and hardware is a necessary step. We must also establish a baseline for IT metrics and then measure progress over time. Reporting on progress occurs in the IT Biennial Report, which is published at the start of each legislative session.

The State CIO will work in cooperation with the established IT governance bodies in developing metrics for assessing the effectiveness and efficiencies in the following IT areas:

- Projects
- Operating expenditures
- Capital investments
- Cyber security

8. IT Services and Processes

Montana's agencies have hundreds of individual applications and services that support their programs and constituents. Describing agency systems and applications, or even listing them, would be lengthy and inappropriate considering their agency-specific scope. SITSD offers a range of enterprise-wide services available to agencies, university system and local governments. The scope of SITSD's service offerings is broad and similar to peer states. Outside of a few isolated services such as fax, e-signatures, cell phones, and business analysis, SITSD's catalog of services is typical for a central state IT organization.

Agencies will look for opportunities to build their program services on shared IT systems: inter-agency systems, SITSD enterprise systems, and interstate systems. Additionally, agencies will provide mobile access to state services for citizens, businesses and state employees.

9. IT Infrastructure, Staffing and Resources

Montana has two primary data centers: the State of Montana Data Center (SMDC) in Helena and the Miles City Data Center (MCDC). MCDC operates as a backup and recovery site. The Department of Justice and Montana State Fund also maintain data centers in Helena. Twelve agencies have moved their equipment into the SMDC. The backbone of Montana's IT infrastructure is SummitNet, a secure consolidated voice, video and data network that supports approximately 22,000 devices at over 600 locations. Montana has approximately 850 IT positions, 6.48% of all state employees.

Agencies will utilize cloud, open source, and COTS solutions, deploying custom built systems only when absolutely necessary.

10. Enterprise IT Initiatives

Enterprise IT Management seeks to maximize the value of information technology at the enterprise level. The key objective of this initiative is to implement policies, processes and tools that ensure IT is effectively procured, used and shared across state and local government. This will result in operational efficiencies, reduced IT costs and seamless, integrated services for Montana citizens. The Enterprise IT Management group will focus on the portfolio of enterprise projects, initiatives and opportunities.

Strategic Planning

The 2001 State Legislature recognized IT as an enabler of government services and enacted the Montana Information Technology Act. MITA identified the need for a unified vision for IT in state government and required the development of an enterprise-wide strategic plan. The State of Montana Strategic Plan for Information Technology provides the framework and guidance for state agencies to develop and use IT resources to provide state government services.

MITA also requires that each state agency develop an IT plan. Agency IT plans identify specific agency technology goals, objectives and budget requirements for implementing the plans. The Act also requires the Department of Administration to review and approve agency IT plans and provide oversight for the state's procurement of IT.

IT Service Portfolio Management

IT Service Portfolio Management encompasses the processes for identifying, evaluating, sourcing, modifying and retiring IT services. The objective is to manage a catalog of services to balance the use of resources, deliver maximum value as quickly as possible, and minimize risk. Decisions on IT services are based on customer requirements and economics, not on technology fads.

The Information Technology Manager Council (ITMC) is forming a group to assist SITSD with:

- developing and prioritizing an inventory of potential shared enterprise services
- vetting proposals for new service investments, modifications and retirements

SITSD's IT Service Portfolio Management strategy includes (1) soliciting service requirements from agencies; (2) continually evaluating shared enterprise services; (3) delivering services that are competitive on price and function; (4) and offering new services that can potentially be used by a large segment of agencies.

Enterprise Records Management / Enterprise Content Management (ECM/ERM)

Montana does not have a standardized approach to ERM/ECM. Multiple systems are used by various agencies. The lack of a single ERM/ECM system contributes to such organizational inefficiencies such as duplicate costs, inability to search multiple systems for related information, limited use of automatic retention schedules and inadequate preservation of historically significant documents.

The initial goal of this effort is to identify the most efficient and effective ERM/ECM solution for the State of Montana based on input from agencies, State CIO, Education and Local Government Committee (ELG) Committee, and other stakeholders. The initial phase of surveying agencies and analyzing RFI responses is complete.

Software Asset Management (SAM)

Currently the state lacks an accurate tool to inventory and manage its software investment. Software licensing terms and conditions are becoming more complex, and software vendors are conducting more audits to ensure compliance with their licensing terms. The risk of an unsuccessful compliance audit threatens financial penalties, loss of staff time, and loss of access to needed software. The purpose of this project is to implement a SAM optimization tool which will improve the state's control of software spending and license compliance across the enterprise.

Geographic Information Systems (GIS) and Data

Multiple agencies use five separate agreements for Esri's cloud-based mapping and collaboration platform, ArcGIS Online (AGOL), to create, publish and share maps. Other agencies would like to use GIS tools but lack the funding to acquire them. The state could minimize costs and maximize usage by re-negotiating a statewide agreement in 2014 with unlimited named users.

Cyber Security

Montana has two primary security initiatives: Mobile Device Management (MDM) and Data Protection. Mobile devices are leading to a more efficient and productive working environment. Mobile device usage is forecasted to explode in the future and it is essential to develop a management strategy now. MDM will:

- Implement tracking of mobile assets, secure mobile data transmission and minimize telecommunication and support costs.
- Develop enterprise tools for more efficient mobile device deployment and management.
- Establish enterprise policies to clearly define standards, limitations and use.

In May 2013, the legislature allocated \$2,000,000 to the Department of Administration for statewide data protection. The Data Protection Initiative encompasses three enterprise-wide security efforts to protect the state's data assets.

- Access Control & Verification implements an enterprise system to authenticate the identity of users and their access to data.
- Multi-factor Authentication implements a system to verify the identity of a user in the enterprise access controls system through more than one authentication factor
- Enterprise Risk Assessment will evaluate the security and vulnerability of selected high-profile, high-value state targets.