



**STATE OF MONTANA  
STRATEGIC PLAN  
INFORMATION TECHNOLOGY**

***NAVIGATING FOR SUCCESS***  
**2016**





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**RON BALDWIN  
MONTANA STATE CHIEF INFORMATION OFFICER  
APRIL 1, 2016**

**MONTANA STRATEGIC PLANS FOR INFORMATION TECHNOLOGY CAN BE FOUND ON  
MONTANA'S OFFICIAL STATE WEBSITE:  
MT.GOV, STATE INFORMATION TECHNOLOGY SERVICES DIVISION AT SITS.D.MT.GOV**



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# LETTER TO CITIZENS

## We are the center for innovation.

As the State Chief Information Officer, I have witnessed firsthand the impact that both internal and external forces have had on the enterprise information technology environment during the last two years. These forces of change are impacting not only the State of Montana but technology service providers as a whole.



Modern organizations are reliant on increasingly complex and integrated information technology for their operations and service delivery. This, combined with challenges of security, funding, and resource recruitment and retention, requires a renewed focus on creating and utilizing enterprise services and resources.

To address these challenges, the most common trend within state governments around the country has been the centralization of information technology functions with an emphasis on shared services and platforms. This trend is based on the need to improve the efficiency and effectiveness of state government by reducing redundancy in software, hardware and support, which has the potential to reduce costs and improve services.

For the State of Montana, the inception of enterprise services can facilitate innovation that results in more affordable and accessible state-of-the-art technology. This is especially true when agencies across state government take advantage of the platforms and services offered at the enterprise level. This in turn will result in even more standardization, better security, and lower costs for state government as a whole.

Sincerely,

Ron Baldwin  
State of Montana Chief Information Officer

## **STATESCOOP GOLDEN GOV:**

### *STATE EXECUTIVE OF THE YEAR 2015 RON BALDWIN*

Ron Baldwin has partnered with Montana's state agencies to make e-government services more seamless and effective. Baldwin is truly an innovative, respected and trusted leader who is utilizing cost effective models to build e-government services. Recently Baldwin participated in the bureau of business and economic research at the University of Montana to perform a cost savings and customer satisfaction analysis on specific services. Over a five year period, the state realized \$3.4 million in operation savings due to online service operations of state government.





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## EXECUTIVE SUMMARY

We are witnessing greater security risks with more nation sponsored activity than ever before. Our workforce is becoming more mobile and the demand for mobile devices on our network is steadily increasing. Younger state employees are tech savvy and are embracing mobile technology and the bring your own device concept. While at the same time, Montana's relatively low unemployment rate makes it more difficult to hire and retain a highly skilled workforce. More then ever agencies are requesting cloud services and are at the same time demonstrating a greater desire to consolidate and move to shared services. The need to maintain budget levels has increase the use of leasing hardware as a cost control method.

In response to this ever changing environment, we are continually evaluating enterprise information technology services to ensure that we are making the necessary changes to move positively into the future to meet these challenges in an innovative, effective, and efficient manner. As we continue moving toward the enterprise model, we will rely on greater collaboration between agencies and focus on developing and providing shared services in a secure manner.

This report outlines the state's accomplishments, opportunities, and future initiatives. Under Governor Bullock's leadership, transparency is perhaps the area where the state has made its most noticeable improvements, as noted in the last national Digital States Survey. With the establishment of the transparency portal, data portal, and business portal, citizens can utilize the data that is collected and maintained on their behalf and understand where their tax dollars are being spent.

We continue to see a need to invest in security as we enhance our protections, establish governance, and enhance enterprise services and value. Agencies continue to demand expansion and upgrades to our network bandwidth as we compete with private industry, public safety, and the citizens of Montana for available bandwidth. Other changes include how the state of Montana incorporates mobile device management, enterprise architecture, and enterprise configuration management.

Moving forward, the combined information technology services of the state of Montana will continue to serve citizens in a secure, efficient and effective manner while at the same time meeting the data transparency need of the citizens of Montana and supporting the Governor's Main Street Montana Project. Mntana's IT services will also support new, innovative ways to communicate both internally and externally.





# MISSION AND VISION

**THE MISSION OF STATE INFORMATION TECHNOLOGY IS TO PROVIDE IT SERVICES TO SUPPORT THE NEEDS OF THE STATE AND CITIZENS OF MONTANA.**



## VISION

STATE INFORMATION TECHNOLOGY HAS A VISION OF BEING AN ORGANIZATION THAT FOCUSES ON:

- Customer service
- Innovation
- Technology that supports Montana citizens and businesses
- Technology that makes government more effective and efficient
- Security and data protection
- Enterprise platforms that provide advanced and affordable technology for the State and local government

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## VALUES

INTEGRITY – Do what is right, legally and morally

HONESTY - Communicate and act truthfully

ACCOUNTABILITY – Take responsibility for own actions and the actions of subordinates

STEWARDSHIP – Properly utilize the resources of the state

RESPECT – Treat people with dignity and value them as individuals





# IT PRINCIPLES

IT principles govern the decisions and operations of the state’s IT community. They provide touch-points and guidelines to ensure the 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.

.....

## BE ACCOUNTABLE:

Resources and funding will be allocated to the IT projects that contribute the greatest net value and benefit to Montana stakeholders.

.....

## MINIMIZE DUPLICATION:

Unwarranted duplication will be minimized by sharing data, IT infrastructure, systems, applications and IT services.

.....

## SHARE OUR RESOURCES:

Montana will use shared inter-state systems to minimize IT expenditures, improve service delivery and accelerate service implementation.

.....

## IMPROVE BUSINESS:

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.

.....

## USE RESOURCES WISELY:

IT resources will be used in an organized, deliberative and cost-effective manner.

.....

## DELIVER SERVICES:

IT systems will provide delivery channels that allow citizens to determine when, where, and how they interact with state agencies.

.....

## PROTECT PRIVACY, DATA AND SYSTEMS:

Mitigation of risks is a priority for protecting individual privacy, confidential data and IT Systems.





# ACCOMPLISHMENTS

The 64th Legislature, in House Bill 10, extended a vote of confidence in the state of Montana data centers by encouraging all state agencies to transition to the state data center unless there is a documented financial or security reason that justifies why the agency should not do so. The Montana Legislature also directed the use of the data centers for local governments, school districts, the university system, and if capacity exists, market the data centers for use by other states.



The State of Montana has been recognized as a national leader in transparency in government spending by the U.S. Public Interest Research Group. Montana received high marks for one of the most comprehensive transparency websites.



The Montana Information Security Advisory Council (MT-ISAC) has been created by an executive order to advise the governor on cyber security issues. Membership represents state and local government, state legislature, universities, Homeland Security and private industry. The mission of the MT-ISAC is to ensure that Montana’s information systems are safe, secure, and resilient.



Virtualization is a recognized best practice that received a 2015 Governor’s award for excellence. Significant savings and efficiencies have been realized through infrastructure sharing that is managed in the State’s data centers. 330 servers and 52 terabytes of data have been migrated into this environment, which was completed as a multi-agency collaborative effort. The Annual cost savings will exceed \$200,000. Participating agencies being recognized: DOA, DLI, COR, and DPHHS.



An Enterprise IT Financial Workgroup has been formed as a multi-agency governance forum that provides input and information for decisions impacting IT service offerings, including rate setting, utilization and cost recovery.

A five year IT infrastructure plan has been developed that identifies the tactical approach for the use of technology in the state. This plan identifies the capabilities that will be needed in order to continue to be a leader in providing services to the citizens of Montana.



Finally and notably, the State of Oregon recieved the National Association of State Chief Information Officers (NASCIO) Gold Medal Award for the Oregon-Montana Disaster Recovery Strategy. This solution provides a disaster recovery strategy that does not rely on third party vendors and did not require capital investments in buildings, maintenance, or staffing for Oregon.



Phase one of this project is one part of the overall Oregon strategy to help improve disaster recovery preparation. This has improved Oregon’s ability to meet customers business needs and provides an affordable disaster recovery solution compared to other traditional disaster recovery options.





# STRATEGIC GOALS

Our strategic goals guide us as we evolve. They provide us with a clear understanding of what we will accomplish. We are continually evaluating enterprise information technology services to ensure that we are making the necessary changes to move positively into the future to meet these challenges in an innovative, effective, and efficient manner.

## GOAL 1 DELIVER ENTERPRISE IT SERVICES TO STATE AND LOCAL GOVERNMENT, AND THE UNIVERSITY SYSTEMS

**Objective 1.1:**  
Identify and deploy networking technology that provides greater security and flexibility at lower costs

**Objective 1.2:**  
Support business needs by utilizing an agile and responsive service delivery model

**Objective 1.3:**  
Actively engage state agencies, local governments, and university systems in the process of developing solutions for improving services

### MEET ENTERPRISE DEMANDS FROM DIVERSE ENTITIES

**THE STATE'S ONLINE SERVICES HAVE GROWN TREMENDOUSLY SINCE ITS FIRST WEB-BASED PRESENCE WAS LAUNCHED IN 2001.**

**TODAY, CITIZENS CAN ACCESS MORE THAN 300 EGOVERNMENT SERVICES AVAILABLE FROM 23 DIFFERENT STATE DEPARTMENTS AND AGENCIES THAT PROCESS MORE THAN 10 MILLION ONLINE TRANSACTIONS ANNUALLY.**





## GOAL 2

# DELIVER MOBILE CAPABILITY THAT SERVES CITIZENS, BUSINESSES AND EDUCATION

### Objective 2.1:

Identify additional mission-critical business functions that will benefit from mobile support

### Objective 2.2:

Improve government efficiency by making government services available anytime, anywhere

### Objective 2.3:

Continue to improve the management of state data and applications on mobile devices.



Last year, Governor Steve Bullock challenged Montana high school students to build mobile applications for the State of Montana, highlighting their computer coding skills and working with state employees to develop ideas to make Montana state government more accessible and effective.

*"Since taking office, two of my top priorities have been improving educational opportunities and making government more effective and accessible. Through this app challenge we've done both," said Bullock. "Science, Technology, Engineering, and Math programs are essential components for our children's education and future careers. This challenge presented students with an opportunity to grow these skills. In addition, through their apps, Montana residents will now have easier access to state data on their phones."*

-Steve Bullock, Governor

## OPTIMIZE MOBILE SOLUTIONS

**NEARLY 2/3 OF AMERICANS ARE NOW SMARTPHONE OWNERS, AND FOR MANY THESE DEVICES ARE A KEY ENTRY POINT TO THE ONLINE WORLD.**

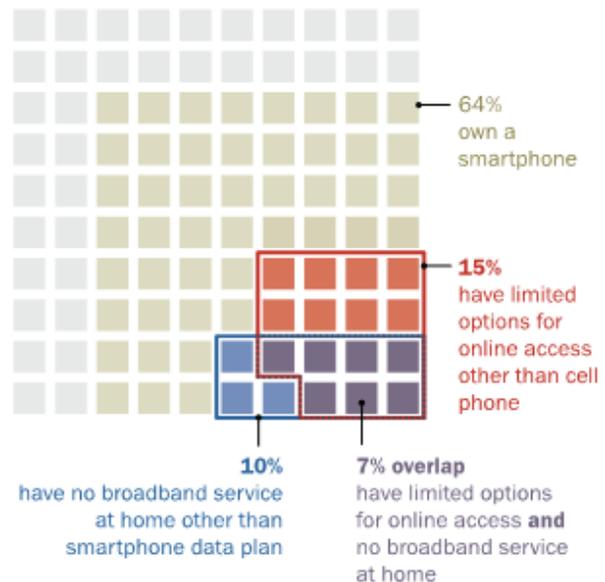
**64% OF AMERICAN ADULTS NOW OWN A SMARTPHONE OF SOME KIND, UP FROM 35% IN THE SPRING OF 2011.**

1 PEW RESEARCH CENTER, "US-SMARTPHONE USE IN 2015," JANUARY 2015

### The "Smartphone-Dependent" Population: 7% of Americans Rely Heavily on a Smartphone for Online Access

*% of U.S. adults who have a smartphone, but lack other broadband internet service at home, and/or have limited options for going online other than their cell phone*

ALL ADULTS



Pew Research Center American Trends Panel survey, October 3-27 2014.





### GOAL 3

## BUILD AND OPERATE ENTERPRISE SYSTEMS THAT ARE SHARED ACROSS STATE AND LOCAL GOVERNMENT

#### Objective 3.1:

Decrease the cost of technology by leveraging economies of scale

#### Objective 3.2:

Actively engage state agencies and local governments in the process of identifying opportunities to share resources

#### Objective 3.3:

Leverage the data center for local governments, school districts, and the university systems

#### Objective 3.4:

Utilize existing appropriation authority to support or enhance enterprise electronic content management services

### STREAMLINE ENTERPRISE SYSTEMS AND OPERATIONS

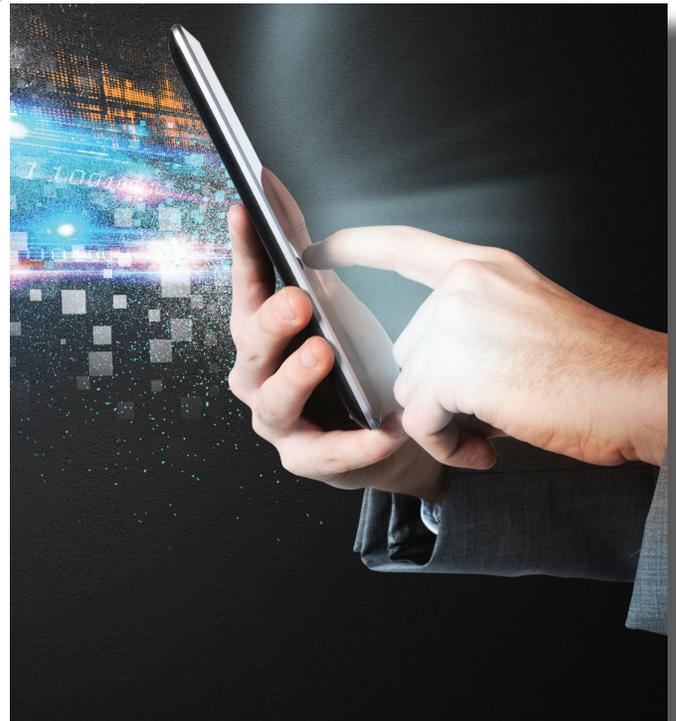
While the utilization of enterprise hosted services yielded the expected benefits, I also



received an unanticipated benefit. When the need arises for a new solution I get a team from SITSD working alongside of my staff to come up with the best options.

-John Daugherty,  
Department of Corrections  
IT Administrator

GET PHOTO WITH GOV BULLOCK  
PRESENTING 2015 GOVERNORS AWARD





## GOAL 4

# UTILIZE CLOUD, OPEN DATA AND EXISTING APPLICATIONS TO MAXIMIZE VALUE AND MINIMIZE COST OF INFORMATION TECHNOLOGY

### MAXIMIZE CLOUD APPLICATIONS

The ability for agencies to utilize enterprise cloud applications has compounding benefits. In addition to cost reductions, it also helps save time and secure data.



The Department of Administration has found great value in utilizing cloud services for SOMRS and eMACS. The ease of use and high level of security provide additional advantages.

-Sheila Hogan,  
Department of Administration  
Director

#### Objective 4.1:

Take advantage of opportunities to save time and money by deploying Software as a Service (SaaS) and other existing solutions over custom-built systems when possible

#### Objective 4.2:

Enable IT to quickly allocate the proper resources to meet fluctuating and unpredictable business needs

#### Objective 4.3:

Increase technology infrastructure efficiencies

#### Objective 4.4:

Increase transparency and access to valuable government data



## WHY PEOPLE USE "CLOUD" APPLICATIONS

% OF THOSE WHO USE ONLINE APPLICATIONS AND SERVICES TO STORE DATA

|   | MAJOR REASON | MINOR REASON | NOT A REASON AT ALL | DON'T KNOW/REFUSED |
|---|--------------|--------------|---------------------|--------------------|
| IT IS JUST EASY AND CONVENIENT                                  | 51%          | 23%          | 23%                 | 3%                 |
| I CAN ACCESS THIS INFORMATION FROM WHATEVER COMPUTER I AM USING | 41           | 25           | 32                  | 2                  |
| I CAN EASILY SHARE INFORMATION WITH OTHERS                      | 39           | 28           | 29                  | 2                  |
| I WON'T LOSE THIS INFORMATION IF MY COMPUTER FAILS              | 34           | 23           | 23                  | 3                  |

SOURCE: PEW INTERNET & AMERICAN LIFE PROJECT APRIL-MAY 2008 SURVEY





## GOAL 5

### MANAGE CYBERSECURITY RISK TO SYSTEMS, ASSETS AND DATA

#### Objective 5.1:

Develop Best Practices for common security controls for all agencies to use.

#### Objective 5.2:

Develop and implement a standardized information security program assessment and measures for departments and the state

#### Objective 5.3:

Provide a yearly State information security assessment to the Governor showing program successes and a plan to address shortcomings

#### Objective 5.4:

Develop a governor's information security dashboard



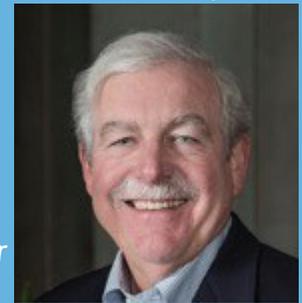
State CIO Priorities for 2016 Top 10 Final Ranking

1. Security and Risk Management
2. Cloud Services
3. Consolidation/Optimization
4. Business Intelligence and Data Analytics
5. Legacy Modernization
6. Enterprise Vision and Roadmap for IT
7. Budget and Cost Control
8. Human Resources/Talent Management
9. Agile and Incremental Software Delivery
10. Disaster Recovery/Business Continuity

#### SECURITY

#### SITSD IS A RECOGNIZED NATIONAL CYBER SECURITY AWARENESS MONTH CHAMPION ORGANIZATION

*"Cybersecurity remains a top issue for State CIO's and their staff. We applaud the states for their commitment to cyber awareness and for bringing attention to the importance of online safety and security by hosting and highlighting their own state programs and resources throughout the month of October."*



*-Doug Robinson, NASCIO Executive director*



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