State of Montana

Montana Department of Transportation

Agency IT Plan for 2016

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Introduction

The Montana Information Technology Act (MITA) requires each State agency to develop and maintain an agency information technology plan that establishes agency mission, goals and objectives for the development and use of information technology, and provides a description about how each agency intends to participate in meeting the goals of the 2016 State of Montana Strategic Plan for IT. MITA defines an agency as any entity of the executive branch, including the university system.

Each Agency IT Plan belongs to the individual agency that develops the plan, but MITA does require some specific content and format. MITA also requires that new investments in information technology can only be included in the governor's budget if the proposed investment is included in an approved agency plan. Section 11 of the Template instructions and your agency IT plan are based on this requirement.

Agency IT Plans are also related the State's Biennial IT Report. Every two years DOA must produce a performance report based on agencies' evaluation of their progress in implementing their IT plans from the previous biennium. This report provides an analysis of the State's IT infrastructure (value, condition, and capacity), an evaluation of the performance of the State's IT capabilities, and an assessment of progress made toward implementing the State Strategic Plan for IT during the previous biennium. Because strategic planning and reporting are closely related, and because each Agency IT Plan and biennial report are updates to existing plans and activities, agencies will provide detailed information on their IT environment in this planning cycle.

Reference Information

The following information may be relevant to development of your updated Agency IT Plan:
- Your current agency strategic business plan and previous Agency IT Plan updates;

- Information Technology Act (2-17-501 through 527, MCA) http://www.leg.mt.gov/css/Services%20Division/default.asp;

- A draft copy of the 2016 State of Montana Strategic Plan for IT is located at: http://sitsd.mt.gov/Governance/Boards-and-Councils/ITMC

- Both the SITSD-supplied Agency IT Plan template and the instruction manual for filling out the Template can be found on the following web page: http://sitsd.mt.gov/Governance/Boards-and-Councils/ITMC

Template Assistance

Please contact Pete Wiseman (444-9665) if you would like assistance, additional information, or an external editor to review your draft IT plan.

Agency Template Submission

Submit the completed Template to SITSD (itpolicy@mt.gov). You may submit your agency IT Plan before the deadline. Include a transmittal letter from your agency head containing the following wording:

Pursuant to the Information Technology Act of 2001, the Montana Department of Transportation presents its plan for information technology for the period July 2016 through June 2021. This plan represents the Information Technology goals, objectives, and strategies of the Montana Department of Transportation and has been reviewed and approved by Michael Tooley, agency head.

Strategic Planning Timetable

January 2016	SITSD publishes a draft of the state-wide strategic IT plan and distributes agency plans instructions and template.
March 1, 2016	SITSD submits the 2016 State Strategic Plan for IT to the Governor and Legislative Finance Committee
April 1, 2016	2016 State Strategic Plan for IT published
April 15, 2016	Agency IT Plans due to SITSD
April – May 2016	SITSD reviews Agency IT Plans, obtains clarifications, and requests changes
May 31, 2016	SITSD recommendation to the CIO for approval of Agency IT Plans. (This is the deadline; each recommendation is due no later than 60 days after receipt of an Agency IT Plan.)
June 30, 2016	Final day for SITSD to approve Agency IT Plans (pending receipt of IT Initiative Supplements)
June - August 2016	The Agency IT Initiative Supplements will be reviewed by SITSD in coordination with OBPP. The Agency IT Initiative Supplements will be appended to the Agency IT Plan upon approval by OBPP.
November 15 2016	Office of Budget and Programming Planning and SITSD submit a summary of major new IT projects to Governor's Office, and for legislators' consideration.
January 2016	SITSD publishes a draft of the state-wide strategic IT plan and distributes agency plans instructions and template.
March 1, 2016	SITSD submits the 2016 State Strategic Plan for IT to the Governor and Legislative Finance Committee
March 15, 2016	SITSD publishes Agency IT Initiative Supplement documents and instructions

1. Executive Summary

Information Technology is an integral part of the services provided to support MDT's ever changing business needs. The technology needed to support MDT will continue to grow and ISD must ensure its services and solutions are aligned with MDT's strategic direction.

MDT ISD will address the business needs of the agency by focusing on five strategic goals:

- Implement IT Solutions to meet Customer Needs
- Implement IT Service Improvements
- Improve ISD Processes
- Research and Develop New Technologies and Services
- Develop the IT Workforce

ISD has developed close relationships and engages the business frequently to understand their needs. For example, ISD and Division staff meet monthly to discuss priorities and needs, an annual Strategic Planning meeting is held each year with senior management from ISD and every division in the agency to review IT needs and services and also to discuss the business goals of the organization. ISD also conducts an annual survey of its customers. These interactions are all components used to develop MDT's IT Strategy and ISD's Tactical Plan.

Limited resources will create challenges, but ISD will continue to find ways to be innovative and creative in meeting the IT needs of the Department of Transportation by focusing on developing its workforce. This will include a solid training program, robust employee development opportunities, and other creative ways to ensure MDT has the best IT talent available.

ISD also intends to leverage enterprise solutions such as contract tracking, talent management, and E-government solutions. For these enterprise solutions to be successfully implemented at MDT, we need to be part of the requirements before they are implemented. Working together with SITSD and other agencies will help leverage scarce IT resources and continue to provide the necessary services to meet the demands of MDT's business units.

2. Environment, Success, and Capabilities

Like all government entities, the Montana Department of Transportation is operating in a highly regulated environment. The principle regulatory agency for MDT is the U.S. Department of Transportation and its component agencies which oversee various aspects of MDT's operations. These major federal agencies include the Federal Highway Administration, Federal Motor Carrier Services Administration, the Federal Aviation Administration, the Federal Railroad Administration, the Federal Transit Administration, and the National Highway Traffic Safety Administration.

For the MDT's Information Services Division, the primary regulatory influence is the State's Montana Information Technology Act (MITA). MITA contains a wide variety of regulations which drives the operations of the Division.

The Montana Department of Transportation has a significant economic impact on the State of Montana. In addition to being the second largest agency in state government employing well over 2,000 employees, the Department has an annual budget of over $650 million. A large portion of this budget is for improving and maintaining the state's transportation infrastructure which is a substantial job creator throughout the state.

MDT's funding is derived from Federal and State Special Revenue sources. The primary Federal source is from the Federal Highway Administration, but additional funds are available from a variety of other federal agencies. The State Special revenues are derived from gas and diesel taxes, as well as motor carrier permits and related fees.

For a list of MDT's goals and objectives for all departmental programs, please refer to our website at this link: Goals and Objectives.

3. IT Contributions and Strategies

The Information Services Division of the Montana Department of Transportation has long been an integral service provider for all operational aspects of the agency and will continue to do so into the future. The Division provides a wide range of services and assets to bring a high degree of business efficiency to all of MDT's operations in support of the agency strategic vision and mission. The division has an outstanding working relationship with all aspects of the business and is constantly working closely with its customers to understand the short and long-term IT needs of the agency.

Among the activities the Information Services Division is currently engaged in to address the on-going needs of the department includes further maturing our information architecture, continually striving to improve connectivity at a wide variety of remote facilities throughout the state, providing improved IT project management and business analysis services throughout the agency, improving electronic records management functions, and a wide variety of other services and improvements identified by our departmental customers.

MDT's Mission:

MDT's mission is to serve the public by providing a transportation system and services that emphasize quality, safety, cost effectiveness, economic vitality, and sensitivity to the environment.

Strategic Vision:

To accomplish its mission, MDT will actively strive to achieve a vision of an organization that has a culture of unity, is fully transparent, and continually improves its effectiveness.

- **UNITY -** Unity is a culture where every employee clearly understands and embraces the vision and goals of the overall organization, and makes achieving them their highest priority. This means managers at all levels strive to align their respective business unit performance targets, activities, and business practices with the goals and objectives of the broader organization.

- **TRANSPARENCY -** Transparency means providing open, accurate, timely, consistent, and understandable information regarding MDT's activities and performance. This includes both communicating internally and with external stakeholders about our strategic direction, decisions, and practices, and openly holding ourselves accountable for results.

- **EFFECTIVENESS -** Effectiveness is accomplishing the mission and goals of the agency through the best, most efficient use of available resources. It is achieved by encouraging a progressive and innovative culture that strives for improvement, is fiscally accountable,

emphasizes safety, values system-wide consistency, and respects both internal and external customers.

4. IT Principles

The MDT Information Services Division supports all the principles cited in the ITSD Strategic Plan for 2016. In addition, MDT has adopted a number of core values to help drive our agency to be the best we can be.

The core values that guide all MDT employees in behavior, actions, and approach include Performance, Respect, Integrity, Dedication, and Empowerment (P.R.I.D.E.).

- **Performance -** Performance is being effective not merely being busy. It requires bringing your best every day and working to help others raise the effectiveness of the both your immediate work unit and the broader organization.
- **Respect -** As embodied in the Confucius saying "*respect yourself and others will respect you*," showing respect sends a powerful message. As employees, colleagues, and public servants, it is critical that we respect our selves, listen to new ideas, and speak words of appreciation to all.
- **Integrity -** Workplace integrity starts with honesty, decency, and trustworthiness. We must always do the right thing, even when nobody is watching. This means we must follow-through, be impeccable, and be honorable and professional in all our actions.
- **Dedication** - Dedication is the undying willingness to keep working and achieving, regardless of mistakes, barriers, and limitations. MDT employees are known for their dedication and must continue to earn this reputation every day.
- **Empowerment -** Employees at all levels should have the authority they need to successfully perform their tasks. This also means that we all have a corresponding level of accountability for the use of that authority.

5. IT Governance

MDT ISD has a governance process in place.   Under the framework, decisions are made and priorities are established within each business unit with involvement of ISD Management staff. The current process includes resource allocation at the business unit level with a monthly meeting between the IT managers and the business units to discuss all IT work activity. An ISD work group has been established to manage this activity and meets monthly to re-assess priorities and reallocate resources based on the needs of the business units.   This process is in place for mid-sized investments, service tickets, and maintenance requests, and provides for a transparent process supported by the business units.

Future plans include an even more mature governance process that ensures IT investments are aligned with agency goals and objectives including a comprehensive IT risk management strategy and a performance measurement component. ISD has been utilizing and will continue to utilize the CobiT framework for assessing and improving our IT processes.

6. IT Financial Management

Within the Montana Department of Transportation, the bulk of the funding for IT operations resides within the Information Services Division. These funds are derived from base budgets and through the

biennial ITSD rate setting process. These funds are State Special Revenue dollars obtained through the collection of State gas taxes.

The Information Services Division is responsible for all routine IT operations and their budget authority is used to pay for the expense of these operations. These operations include all the services outlined in Section 7 of this plan, and many other lesser services not listed.

A number of divisions are responsible for the annual maintenance costs of various large, vendor-provided IT systems. These funds typically are part of these Divisions base budgets.

As various one-time, large IT procurements become necessary within the agency, the spending authority for these procurements come from a variety of sources. These sources include EPP requests to the State legislature, grants obtained from specific federal sources, House Bill 10, and carry-forward funds as available.

The Montana Department of Transportation does not engage in any charge-back processes within the organization for IT services. Rather these services and costs are borne by MDT ISD.

7. IT Services and Processes

Like all Montana State agencies, MDT's Information Services Division offers a wide variety of IT services to support the business needs of the agency. Among these services include:
- Web Services
- GIS Services
- Application Development
- IT Project Management
- Records Management
- Video Conferencing
- Webinar Conferencing
- Help Desk Services
- Computer Training
- Hardware and Software Replacement, Repair, and Support
- IT Procurement Services

8. IT Infrastructure, Staffing and Resources

Like most IT organizations, MDT faces continuing growth and demand for information technology solutions to meet the ever-changing demands of the business. MDT has a remarkable set of highly professional employees engaged in meeting the IT demands of the agency. MDT is committed to providing training and other professional growth opportunities to help these employees continue to grow and stay current in their profession. However, the demands from the business for new and better IT services and assets continues to grow which places enormous demands on MDT's IT staff.

To mitigate these demands, MDT ISD is always seeking efficiencies in operations in order to allow us to meet the demands of the business. Another strategy is to utilize the vendor community to augment our operations on an as-needed basis. Although this approach certainly helps relieve some of the pressure, it still requires resources to manage these contracts throughout the engagement.

Two areas in which MDT ISD recognizes a need for future talent are in the arenas of electronic records management and IT project management. As these issues grow in importance within the State enterprise, as well as within our agency, MDT will clearly need to acquire more expertise in these fields.

MDT ISD continues work towards highly available information technology solutions, especially those depended upon by the traveling public. Presently, our server infrastructure resides in the Helena SMCD along with key data, and is replicated in Miles City (MCDC). We plan to deploy infrastructure in the MCDC that allows us to actively run critical applications from Miles City should a catastrophic outage occur in the SMDC. Further, MDT ISD is planning on evaluating options for cloud hosting that will provide more reliable infrastructure at a lower cost. As technology changes and budgets are further constrained, MDT must continue to seek the most cost effective IT solution to meet our ever changing needs. Seeking state-of-the-art, secure, reliable, and cost effective hosting solutions is part of MDT's strategy and is aligned with the State IT Strategic Plan.

9. Risks and Issues

Primary Risk	Probability	Impact	Mitigation Strategy
Security breach	Medium	High	Our agency has an active security program including, but not limited to, staff training and awareness, data encryption, and security policies.
Difficulty of recruiting qualified technical staff	High	High	Increase pay for positions most affected by this issue and utilizing best practices for recruiting new employees. These practices include, but are not limited to, expanding our internship program, fostering and expanding our relationships with colleges and universities, and using social media to help recruit.
Need for IT business process improvement	High	Medium	ISD is actively engaged in identifying opportunities to improve internal business processes and developing strategies for maturing these processes in order to be more in line with IT industry best practices.
Growing IT service demands with a static IT workforce	High	Medium	The agency will continue to seek and implement efficiencies in all aspects of operations to attempt to continue to meet agency needs.
Decentralization of IT Operations within the agency	High	Medium	Improved communication and coordination with areas that have IT staff in their work units and limiting any new such organizational changes.
Lack of a comprehensive IT architecture	High	High	ISD will complete its IT Architecture project in June of 2016. It will include a comprehensive set of recommendations.
Connectivity at all locations throughout the state	Medium	Medium	ISD will continue to monitor and evaluate the ever changing band-width needs of MDT's remote offices and work closely with SITSD to meet these needs in a timely and cost-effective manner.

10. IT Goals and Objectives

The Information Service Division of the Montana Department of Transportation has five broad goals that steer our information technology strategic and tactical direction. In addition, MDT ISD has identified a number of specific objectives for each of these five goals. These goals and objectives follow:

Goal 1 – Implement IT solutions to meet customer needs
    Objective 1: Implement the Maintenance Management System
    Objective 2: Implement the ePART system
    Objective 3: Initiate the Traveler Information technology upgrade project
    Objective 4: Continue the PPMS project
    Objective 5: Implement a new Linear Reference System
    Objective 6: Initiate the Financial Management project
    Objective 7: Initiate the Automated Routing project
    Objective 8: Implement a new Grievance Tracking system

Goal 2 – Implement IT Service Improvements
    Objective 1: Implement an electronic records management solution for MDT
    Objective 2: Develop and implement a web strategy
    Objective 3: Develop and implement a Service Management strategy
    Objective 4: Assess video conferencing alternatives
    Objective 5: Assess IT Training needs
    Objective 6: Improve network connectivity
    Objective 7: Implement cost effective hosting solutions to meet future MDT needs

Goal 3 – Improve ISD Processes
    Objective 1: Develop and implement a portfolio management process
    Objective 2: Develop and implement a disaster recovery strategy
    Objective 3: Update application development standards
    Objective 4: Develop and implement decision and communication processes
    Objective 5: Assess and manage IT risks
    Objective 6: Define the information architecture and technology strategy
    Objective 7: Implement a security program
    Objective 8: Manage the Mobile Device Management Project

Goal 4 – Research and Develop New Technologies and Services
    Objective 1: Assess and develop mobile computing solutions
    Objective 2: Assess unified communication technologies
    Objective 3: Assess desktop computing alternatives
    Objective 4: Implement new endpoint management tools
    Objective 5: Develop a business intelligence technology strategy for MDT

Goal 5 – Develop the IT workforce
    Objective 1: Develop a recruitment and retention strategy
    Objective 2: Assess and implement technical and soft-skill training, and provide cross-training opportunities
    Objective 3: Develop a succession planning strategy
    Objective 4: Improve and expand career ladder and employee development opportunities

11. IT Projects

Item	Description
Project name	Traveler Information Management System – Phase I – Requirements Gathering
Project/program purpose and objectives	The Montana Department of Transportation's existing Traveler Information Management System is an in-house developed, legacy system approaching 20 years old. The system lacks much of the modern functionality necessary to meet the demands of the traveling public and there are a variety of robust commercial-off-the-shelf (COTS) options available in the marketplace to meet MDT's needs. The first phase of this project is to capture and document the business requirements for a new Traveler Information Management System. Upon completion of the requirements gathering phase, MDT will assess whether to move forward with subsequent phases of the project, which will likely include RFP development and solicitation, contract award, and COTS system implementation.
Estimated start date	Spring, 2017
Estimated cost	$150,000 to $300,000
Funding source - 1	Agency budget
Funding source - 2	
Funding source - 3	
Annual Costs upon completion	Not Applicable

12. Security, Business Continuity, and Records Management Programs

MDT's Security Program Description:

MDT employs an Information Security Manager (ISM) to develop and implement the Information Security Program (ISP) consistent with MCA 2-15-114. In August of 2015, the State of Montana approved a new Enterprise Information Security Policy and Cybersecurity Framework. MDT is working toward implementing the requirements of this policy within the next three to five years. The Information Security Advisory Council has developed Workgroups to assist agencies in the implementation process. MDTs Information Security Manager has volunteered for the Assessment, Best Practices, and Situational Awareness Workgroups. Additional workgroups will be developed regarding specific security requirements or practices, which MDT's ISM will participate in as appropriate.

The Montana Department of Transportation's Information Services Division contracted with Dell SecureWorks in the fall of 2014 to conduct an assessment of over 20 internal critical systems, 4 external web-facing applications, and the SANS 20 Critical Controls. The ISM coordinated mitigation strategies to remediate all identified internal systems vulnerabilities. Additionally, high-risk vulnerabilities have been remediated for the four web-facing applications. One major web application, the Fuel Tax Management System, was re-written, which remediated several high-risk vulnerabilities. Another vulnerability scan was conducted prior to the system being deployed to production. No critical or high-risk vulnerabilities were detected. This is one method the Information Security Program is working to develop a proactive approach to protect MDTs information system assets. Furthermore, the MDT ISP has implemented in-depth security awareness training for all new employees during MDT New Employee Orientation. This training covers current threats, policy requirements, and security best practices. Additional security training is provided to MDT divisions and bureaus upon request.

The objective for MDTs Information Security Program in the upcoming biennium includes further remediation of the SANS 20 Critical Control vulnerabilities and implementing the Enterprise Information Security Policy.

Continuity of Operations (COOP) Capability Program Description:

MDT is currently working on Business Continuity Plans (BCP). The responsibility for overseeing BCP development was assigned to MDT's Disaster and Emergency Services (DES) Coordinator in MDT's Maintenance Division. Over 200 plans have been started, and it is anticipated there may be a need for around 400 plans within MDT. MDT has a Business Continuity Coordinator to work full time on BCP development at MDT.

Future plans include the development of Emergency Action Plans in conjunction with the Montana Emergency Response Framework and the BCP. The Information System Contingency Plans and Communication Plans will begin initial development during Phase 1 of the BCP and will be integrated as part of the overall plan. The Incident Management Plans have been completed as part of the MDT Emergency Operations and Disaster Plan.

Public Records

The Montana Department of Transportation has a robust Records Management program employing two full-time staff members to manage all aspects of managing records in Helena as well as throughout the state in our numerous district and area offices. Among the duties include managing a fully functional

hard copy records center, maintaining the agency retention schedules, managing legal holds, and overseeing the annual records disposal process in conjunction with the Secretary of State's office, as well as the Montana Historical Society.

Future plans include the acquisition of a full-fledged electronic content and records management system to address the electronic document needs of the agency. MDT would like to begin gathering business requirements for such a system in the near term, with the goal of identifying and acquiring a robust solution that meets all the varied needs of the agency.

13. Planned IT Expenditures

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
IT personal services	$8,406,779	$8,600,764	$8,600,764	$8,600,764	$8,600,764	$8,600,764
IT operating expenses	$11,646,932	$11,485,439	$11,485,439	$11,485,439	$11,485,439	$11,485,439
IT initiatives	$2,200,000	$7,800,000	0	0	0	0
Other	0	0	0	0	0	0
Total	$22,253,711	$27,886,203	$20,086,203	$20,086,203	$20,086,203	$20,086,203

14. Administrative Information

Description: This part provides SITSD with contact information if there are any questions. Fill in the appropriate names and information.

IT strategy and plan owner: Name: Mike Tooley
    Phone: 406-444-7619
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IT contact: Name: Mike Bousliman
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