

2008 INFORMATION TECHNOLOGY STRATEGIC PLAN OVERVIEW

A Report Prepared for the
Legislative Finance Committee

By
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Legislative Fiscal Division



www.leg.mt.gov/css/fiscal

INTRODUCTION

This report is written to advise the Legislative Finance Committee (LFC) of potential impacts to fiscal policies and fiscal impacts implied within the 2008 update of the state information technology strategic plan (Appendix A). Montana state government currently operates under the direction of the third statewide plan developed after passage of the Montana Information Technology Act of 2001, which is titled the State of Montana Information Technology Strategic Plan 2006.

The Montana Information Technology Act of 2001 requires updates and distribution of statewide information technology plan updates to agencies by April 1 of each even-numbered year. Agencies are required to develop and have approved by the Department of Administration strategic plans for managing agency information technology resources in compliance with the statewide plan. Agency plans should provide a strategic direction for agencies to manage their information technology resources with the same strategic direction as the entire state government enterprise, but with specifics addressing the agency missions and services.

The statewide plan sets the strategic direction for the state in the use of information technology (IT) resources to provide the services and programs of the state. The goals, objectives, and action items of the statewide plan imply fiscal policies and fiscal impacts the committee may want to consider. However, this update provides no new policy or impact concepts that weren't addressed in the 2006 staff analysis of the plan, because the 2008 update is the same plan as the 2006 plan. Because the state plan is intended to provide general strategic direction for the state, it is not possible to evaluate with any certainty the fiscal impacts or whether a policy change will be proposed. Instead of identifying a specific impact, only an indication of whether the item would increase or decrease the budget pressure will be indicated, when implied. It will not be until after agencies have updated their plans and evaluated the funding options that specific fiscal impacts will be apparent and included in budget or legislation requests.

As stated, the 2008 update to the statewide plan makes no changes to the 2006 plan. As quoted in the 2008 update, "The 2006 Strategic Plan continues to be valid and relevant to the future direction of IT for the state of Montana. Therefore, the 2006 Strategic Plan does not require revisions in direction or strategy and will continue as the 2008 Strategic Plan for the next biennium."

Because the 2008 update is the same as the 2006 plan, this report only restates the issues and concerns raised in the review of the 2006 plan to provide context for the discussion. To the 2006 issues, the report adds a discussion of the LFC actions taken in 2006 in response to those issues and the current status of the issues. For the 2008 update, staff identified one issue of the 2006 plan that the committee may want to consider for action. The report identified the following issues the 2006 LFC considered:

- Unknown risks associated with the planned adoption of an open-source software standard
- Alternative funding plans for information technology resources could reach across agency boundaries and impact legislative processes for prioritizing funding
- An initiative to provide state business continuity in case of disasters or emergencies could cost \$25 million

PLAN ISSUES

As stated in the introduction, the 2008 update makes no changes to the 2006 statewide IT strategic plan. The 2008 update of the state information technology strategic plan is limited to a statement of Montana's information technology vision along with goals, objectives, and action items to achieve the vision. One or more objectives are listed for each goal and several action items are listed for each objective. The goals and objectives provide general strategic direction for managing and developing information technology resources and the action items provide the expected actions. For the 2006 plan, staff has evaluated each associated action item to identify if the item implied a departure from current fiscal policy or a potential change of fiscal commitment by the legislature. In response to the staff analysis of the 2006 plan, the 2006 LFC took action, the status of which will be presented in this report.

2006 ISSUE – MEASURABILITY OF GOALS

Montana law specifies that the state strategic information technology plan must specify the statewide mission, goals, and objectives that establish the strategic direction for the use of information technology resources to provide state government services. The update does not specify the mission, but identifies Montana's information technology vision. The goal identified in the plan update and the objectives that support the goals are general statements not readily adaptable to developing measures that could be used to determine success or failure. This is relevant since Montana law also requires development of a biennial report on information technology, and specifies that the biennial report assess the progress toward implementing the state strategic information technology plan. Without measurable goals, how can the required assessment be made? The 2006 plan analysis had no issues with the goals, but questioned how the CIO would assess progress toward the goals without indicating what would be measured.

2006 LFC Action Taken - Goal Measurability Issue

To address the issue, the committee requested the Department of Administration provide a list of measures that would be used to access the plan goals and objectives. In response to the request, the state chief information office (CIO) provided a list of sample measures at the October 2006 LFC meeting that were intended to be used to evaluate progress against the plan. The measures provided by the CIO are included in Appendix B and are available on the committee's web site at:

http://leg.mt.gov/content/publications/fiscal/interim/financecmty_oct2006/Cover_ITPlanPerfMeasures.pdf

Upon reviewing the sample measures provided by the CIO, the LFC raised no further concerns with goal measurability.

2008 Status - Goal Measurability Issue

Given the issue, the provision of the measures, and the LFC reaction in 2006, staff no longer raises goal measurability as an issue.

GOALS OF PLAN UPDATE

The goals identified in the plan update, to attain the Montana information technology vision, are listed below and followed with descriptions and discussions of any potential fiscal impacts or policy implications apparent in the associated action items:

- Create quality jobs and a favorable business climate
- Develop information technology resources in an organized, deliberative, and cost-effective manner
- Improve the quality of life of Montana citizens
- Protect individual privacy and the privacy of information contained within information technology systems
- Improve government services

CREATE QUALITY JOBS AND A FAVORABLE BUSINESS CLIMATE

Plan Objective and Action Items

The objective and action items for the goal to create quality jobs and a favorable business climate focus on expanding Montana's SummitNet network. An expansion of SummitNet would provide its reach into more Montana communities to improve access to public data.

Implications of Plan Objective and Action Items

Expansion of the network will entail costs to purchase and maintain new network connection and routing equipment. Without a specific proposal, it is not apparent if the expansion would result in higher fees for use of the network.

DEVELOP INFORMATION TECHNOLOGY RESOURCES IN AN ORGANIZED, DELIBERATIVE, AND COST-EFFECTIVE MANNER

Plan Objectives and Action Items

The goal to develop information technology resources in an organized, deliberative, and cost-effective manner lists four objectives: 1) implement best practices; 2) implement new technologies; 3) provide stable funding; and 4) implement a workforce development plan.

Implementing best practices focuses primarily on the concepts of developing and expanding information technology project management disciplines and staff, statewide and within agencies. The centerpiece of the objective to implement new technologies is the development of business cases and policies to move toward open-source software and open-document and data exchange standards as state standards. The objective to provide stable funding for information technology mainly involves evaluating current funding levels and approaches, and developing strategies for alternative approaches to enhance funding stability. The objective to implement a workforce development plan involves developing an appropriately sized and competent state employee workforce for information technology.

Implications of Plan Objectives and Action Items

Several of the action items for the above listed objectives imply either a fiscal impact or a change in policy. The objectives and implications are discussed below.

Project Management

The plan calls for expanding agency project management expertise and the project management services of the Information Technology Services Division (ITSD). The plan implies an increase in staff or contracting to provide project management services within agencies or to agencies unable to justify developing the expertise, and to support agency project management staff. Expanding ITSD and agency project management staff implies increased budget pressures to fund additional FTE and training costs. Instilling a stronger emphasis on project management would also increase initial costs for information technology projects, but the intended outcome would likely be better managed projects, leading to lower risks and overruns in schedule and costs.

Open-source

One item of the plan that may potentially be controversial is the implied move toward open-source software and open-document and data exchange standards. Open-source software is software for which the underlying programming code is available to the users so that they may read it, make changes to it, and build new versions of the software incorporating their changes. Open-source software is in contrast to software of a proprietary nature, such as Microsoft Windows operating system, in which the source code is encrypted to prevent users from adapting or modifying the programming code. Potential controversy arises because the move would be a departure from existing practices, which is only being tested in one other state government, Massachusetts. Massachusetts established a state standard that mandates the use of open-document-based products. Open-source software is not untested; it's just not well tested in state government where Microsoft products have enjoyed dominance for years.

Developing a state standard that requires open-source software is a departure from current practice and policy, and could have significant, but unknown consequences. A complete analysis that compares both the benefits and costs, as well as the risks and operational impacts between staying with a proprietary software approach, moving to an open-source approach, or a hybrid of both is needed prior to proceeding with such a significant policy change. The plan calls for developing business cases that would be used to evaluate moving to open-source software and open-document and data exchange standards. Converting to an open-source software standard could result in savings to the state in software licensing costs. The evaluation, called for in the plan, should identify risks and the costs to convert to and operate under a new standard. Until an evaluation is completed the fiscal implications are not available.

The strategy implies a direction that may expose the state to significant but yet unknown risk. The committee may want to have the state chief information officer (CIO) elaborate more on the plans to evaluate and adopt open-source software and open-document and data exchange standards. Because the initiative could have far reaching impacts across all state agencies the committee may want to monitor the evaluation and resulting business cases as the initiative proceeds.

2006 Issue - Committee May Want to Monitor the Open-source Software Initiative

The committee may want to direct the CIO to include updates of the open-source software evaluation as part of regular updates to the committee. Assumed if the committee directs the updates from the CIO is direction to staff to monitor the initiative and identify any issues and concern for the committee.

2006 LFC Action Taken - Monitor the Open-source Software Initiative

The LFC requested the CIO include updates of the open-source software evaluation in regular updates to the LFC.

2008 Status –Monitor the Open-source Software Initiative

Subsequent to the request of the LFC, no reporting on the open-source software initiative was provided.

2008 Action Recommendation - Monitor the Open-source Software Initiative

Since the open-source software initiative is again included in the 2008 plan update and no reports were provided at the 2006 committee's request, the committee may want to reaffirm the actions of the 2006 LFC and request that a report on the initiative be included as a regular part of the CIO report to the LFC.

Alternative Information Technology Funding Approaches

The plan implies a shift in culture from viewing information technology as a discretionary cost to viewing it as an infrastructural asset integral to effective and efficient government operations. Action items in support of the objective, for stable funding of information technology, focus on developing alternative approaches to funding information technology assets, both management systems and equipment. Under current practices, funding requests for systems in agencies are evaluated and approved in relative isolation and separately based on the agency and program structure of HB 2, except when they are included in the capital projects or bonding legislation.

2006 Issue – Alternative Funding Approaches for Information Technology

Under current practices when multiple agencies collaborate on a system, each agency requests funding for its portion of the system. The plan implies a different approach that may include reviewing all information technology requests in one legislative committee, developing an information technology funding pool with a dedicated source of revenue, or other approaches that would provide more stability to the funding of critical information technology projects that have a statewide impact or for agencies with more restrictive fiscal resources. Since the plan provides no specific alternatives, the impacts are not apparent. Potential impacts could range from directing a portion of new or existing revenue to a special information technology fund to changing the process for reviewing information technology budget requests during the legislative session. For some alternatives, statute would need to be amended, while other alternatives could be implemented through agreements between the legislature and other branches of state government that specify agreement on budgeting processes and procedures.

2006 LFC Action Taken - Alternative Funding Approaches for Information Technology

The LFC requested the CIO include updates of the actions and progress for the alternative-funding objective in regular updates to the LFC.

2008 Status – Alternative Funding Approaches for Information Technology

Subsequent to the request of the LFC, no reporting on the alternative-funding objective was provided. However, the alternative-funding objective has evolved into the process used by the executive during the 2007 Legislature,

in which major IT projects were requested in a single bill similar to how Long-range Building Program funding is requested. HB 14 of the regular session and HB 4 of the May special session requested funding for major IT projects. The executive has stated the intention to continue this process for the 2009 Legislature and has initiated a project to add an IT project module to the Montana Budgeting Analysis and Reporting System (MBARS) that will be similar to the capital projects module currently in the system.

Implement a Workforce Development Plan

The plan lists two action items for the objective to implement a workforce development plan that imply fiscal impacts beyond current funding: 1) expand information technology training; and 2) establish appropriate employee/contractor balance. To reach the goal, the plan first calls for determining the information technology skills and staffing needs of the state, then determining the most appropriate balance between contracted and state FTE staff resources. Once an appropriate FTE level has been determined, the plan calls for evaluating the skills of the existing state FTE and developing, through training and recruitment, the appropriate skills and proficiencies as identified in the needs assessment.

Expanding training to keep staff current with the changing technology would put increased pressure on agency budgets to fund more training. Establishing an appropriate balance between contracted and FTE staff levels would likely lower budget pressures, assuming the current staffing level, made up of state FTE and contractors. is adequate to meet state needs and the appropriate balance between state FTE and contractors is achieved with cost effectiveness a major factor in determining the balance.

2008 Status – Implement a Workforce Development Plan

Workforce development for IT professionals is still being developed, but the following progress has been made:

- The CIO has established a position to spearhead the efforts first for the Information Technology Services Division (ITSD) of the Department of Administration and eventually for process transfer to other agencies as requested
- A contract has been awarded to develop skills and aptitude tests that will be given to all existing IT employees and used as a part of the hiring process. The testing tools will be used to develop a baseline skills inventory for all ITSD IT professionals
- Baseline skills test results will be used in the performance appraisal and development plan processes
- Baseline skills test results will be used to plan career plans and training for IT professionals
- A pilot performance appraisal system is being developed based on an existing system used in the Department of Labor and Industries

IMPROVE THE QUALITY OF LIFE OF MONTANA CITIZENS

Plan Objectives and Action Items

The goal to improve the quality of life of Montana citizens focuses on improving public safety communications in Montana. The action items for improving public safety communications with implied fiscal implications involve expanding wireless enhanced 9-1-1 emergency telecommunications services to all Montana public safety answering points and identify funding scenarios for interoperable public safety radio and are discussed below.

Improve Public Safety Communications

2006 Discussion – Improve Public Safety Communications

The plan calls for identifying and exploring additional funding scenarios for interoperable public safety radios. The Interoperability Montana Project is a collaborative project between nine Montana consortia and three state agencies (Department of Transportation, Montana Highway Patrol, and Department of Natural Resources), which represents all 56 counties and seven tribal nations. Past funding has been from a variety of state, federal, and other grant sources. The basic purpose of the project is to improve communications between local law enforcement, state and federal government, and tribal authorities by providing interoperable digital voice and

data radio capabilities along the Montana/Canada boarder. It has been estimated that \$150 million from all sources would be needed to develop interoperable radio communications across the entire state. So, the action item of the plan would imply some level of state fiscal impact to continue the developing interoperability across the state. The specific level of future state funding cannot be determined from the plan details.

2008 Status – Improve Public Safety Communications

Past funding for interoperability projects included:

- 2007 biennium - \$3.5 million of one-time-only general fund moneys was appropriated as a direct state contribution to the Northern Tier Interoperability Project
- 2009 biennium - HB 4 of the May 2007 Special Session included nearly \$8.1 million for two public safety radio projects: 1) public safety radio consortium; and 2) public safety radio interoperability.

So far, two concept demonstration projects have or are scheduled for completion with past funding:

- Lewis and Clark County (completed)
- Northern Tier Interoperability Project along the hi-line and Canadian border (scheduled for completion in fall 2008)

The next phase is expected to add 29 additional sites into the system along the more populous areas of the state's central and southern regions. The Interoperability Montana Project fact sheet included in Appendix C provides information and a visual indication of how much of the state the project phases have and would cover. Public safety funding initiatives for the 2011 biennium have not yet been developed, so the fiscal impacts of next phase can not be determined at this time.

PROTECT INDIVIDUAL PRIVACY AND THE PRIVACY OF INFORMATION CONTAINED WITHIN INFORMATION TECHNOLOGY SYSTEMS

The objectives and action items for the goal to protect individual privacy and the privacy of information contained within information technology systems focus on adopting standards, assessing risk, and developing a security risk mitigation plan. As long as existing FTE are used to carry out the planned activities, the goal should not impose an appreciable fiscal impact beyond present law funding. The security risk mitigation plan could recommend policy changes that may need statutory changes to implement, but specific policy impacts cannot be identified until the risk mitigation plan is developed. The security risk mitigation plan will initiate a multiphase, multiyear implementation that will be tied to state budgeting cycles and will begin with an implementation plan scheduled to be complete July 1, 2008.

IMPROVE GOVERNMENT SERVICES

Plan Objectives and Action Items

The goal to improve government services lists three objectives: 1) expand electronic government services; 2) expand geographic information systems; and 3) expand business continuity and disaster recovery planning.

Expanding electronic government services focuses on providing services via the official state Internet website by proving an intuitive common look and feel, improving accessibility for the visually impaired, and increasing the variety of services offered via electronic means. Most electronic government services are provided through a self-funded cooperative effort between the state and private industry, so new services would not likely have direct fiscal impacts to the state. Expanding geographic information systems (GIS) involves efforts to include geographic information into new state information technology system designs and to make geographic information more readily available to citizens and other state agencies via electronic means. Expanding business continuity and disaster recovery planning involves expanding agency and local government planning to remain operational during natural or man-made disasters and emergencies or recoverable following a disaster or emergency.

Implications of Plan Objectives and Action Items

The action items with an implied fiscal implication for the above objectives are described below.

Expand Electronic Government Services

Expanding electronic government services available electronically to the public makes interacting with state government easier, quicker, and more convenient to those interacting with state government. Electronic government services are provided directly by agencies or through a self-funded portal currently awarded to a private company called Montana Interactive. Electronic government services offered through the self-funded portal are funded through convenience fees as allowed in statute and are paid by customers as a fee for the convenience of quicker service that doesn't require traveling to a state office to conduct business. Of the self-funded portal services 86 services were offered in 2005 to nearly 1.5 million visits to the service sites. These service numbers are up from 10 service offerings and 50,500 visits in 2001.

2008 Status – Expand Electronic Government Services

Electronic government services have grown since approval of the 2006 plan update, with 118 services offered in 2007 and slightly more than 3.1 million visits to the self-funded portal service sites. 2009 biennium budgets for agencies also included funding for electronic government service initiatives, such as the \$4.7 million for the Department of Revenue to provide free electronic tax filing services to citizens and businesses of Montana.

Geographic Information as a Part of System Design Requirements

Requiring new agency applications and systems to consider geographic information system data as a part of their design would likely increase the complexity and costs of new systems during the development phase and would add costs to maintain the systems and data after development and implementation.

2008 Status – Geographic Information Systems

The CIO has added a third deputy CIO to his organization through the addition of a geographic information officer (GIO) to provide the focal point for state GIS.

Expand Business Continuity and Disaster Recovery Planning

An action item of the objective to expand business continuity and disaster recovery planning calls for replacing the state's existing data center in Helena with a new state of the art data center and establishing a redundant data backup and recovery site outside of Helena. Rough estimates to build a new data center and a recovery site remote from Helena total \$25.0 million.

2008 Status –Enterprise System Service Center

HB 4 (1997 May Special Session) appropriated \$14.5 million of total funds to construct a new enterprise system service center (data center) in Helena and a backup center in a site remote to Helena. The project is currently in the site selection phase for both centers. According to a press release from the CIO, an announcement of the preferred site for the remote data center will be made on March 4, 2008. Once sites are selected, the detail construction planning can be completed. The project is expected to be completed in March 2010.

CONCLUSION

The state information technology strategic plan provides strategic direction for state agencies to develop agency information technology strategic plans to administer their information technology resources to meet the agency specific missions but in a consistent manner across state government. Because the state plan provides broad strategic guidance with few specific requirements and contains no specific initiatives, budgetary and policy impacts of the plan are speculative. The 2008 plan update is a restatement of the 2006 plan so no new policy concepts are presented. LFC actions taken on issues identified with the 2006 plan are identified and the status of the issues and plan components are provided. Only one issue raised to the 2006 LFC is again raised and a recommendation to request regular CIO updates on the topic of open-source software evaluation is presented.

APPENDIX A

STATE OF MONTANA INFORMATION TECHNOLOGY STRATEGIC PLAN 2008

State of Montana

Information Technology Strategic Plan

2008

This is the fourth State of Montana Strategic Plan for Information Technology prepared under the authority of the Montana Information Technology Act of 2001. It is published biennially unless special interim plans become necessary.

INFORMATION TECHNOLOGY SERVICES DIVISION

Dick Clark, Chief Information Officer

1 April 2008

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OFFICE OF THE GOVERNOR
STATE OF MONTANA

BRIAN SCHWEITZER
GOVERNOR



JOHN BOHLINGER
LT. GOVERNOR

March 2008

Fellow Montanans:

Information Technology (IT) plays an increasingly significant role in our daily lives. Try to imagine life without the Internet, cell phones, and electronic mail. For Montana state government (IT) is an essential tool for delivering service and controlling costs of state operations. This strategic plan is our guide through the complex issues and problems that are part of effectively managing IT.

The needs of our citizens and businesses are the primary focus of state government. Technology can deliver time and laborsaving services for a reasonable investment and manageable risk when industry best practices are used. The Internet and "e-Government" systems allow Montanans to conduct business with the state from our homes and offices at any time of the day or night; avoiding the need to visit a state office that may be a considerable distance away.

I am grateful for the assistance of advisory groups and state staff that developed this plan.

The State Strategic Plan for Information Technology provides direction to state leaders and agencies, and coordinates all of our efforts. The plan's goals and objectives will be reached through the strong federal, state, local and private sector partnership upon which it is built.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Schweitzer". The signature is stylized and fluid, with a long horizontal stroke extending to the right.

BRIAN SCHWEITZER
Governor

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State of Montana Strategic Plan for Information Technology

INTRODUCTION

The Information Technology Strategic Plan (Strategic Plan) serves as the voice of the Montana Information Technology Act (MITA Title 2, chapter 17, part 5 MCA). The Strategic Plan is a living document. It is reviewed every two years to identify the goals that will be emphasized. It provides the framework and guidance for state agencies to develop and use information technology resources, and provides accountability to the Governor, the Legislature and the citizens of Montana.

The Department of Administration is responsible for enforcing and supporting MITA through the appropriate development and implementation of policies, standards, rules and procedures. The Department will strengthen its efforts by implementing the recommendations of the 2005 Enterprise IT Management Audit.

ITSD's Policy and Planning Services Bureau started the process of updating the Strategic Plan for Information Technology during the fall of 2007. The process involved reviewing reports, plans, and soliciting input from the following advisory groups.

- Information Technology Board
- 2007 Biennial Report
- Analysis of the progress on enterprise IT initiatives
- Agency IT plans updated in the summer of 2007
- Montana Geospatial Strategic Plan 2006-2010
- Information Technology Managers Council
- Statewide Interoperability Executive Council
- Economic Development Advisory Council
- Electronic Government Advisory Council

The strategic implications from current agency IT projects, the administration's economic development activities, geospatial technology, and eGovernment applications support the current goals and objectives and have not introduced new directions for the existing 2006 plan.

The 2006 Strategic Plan continues to be valid and relevant to the future direction of IT for the state of Montana. Therefore, the 2006 Strategic Plan does not require revisions in direction or strategy and will continue as the 2008 Strategic Plan for the next biennium.

The definition of terms marked with an * are contained in the Glossary.

MONTANA'S INFORMATION TECHNOLOGY VISION

Montana state government will:

- Be customer-focused in providing electronic and traditional access to government services and information.
- Meet customer expectations regarding their right to participate and their right to know, while protecting their right to individual privacy.
- Promote and use information technology to enable its customers to prosper in the global economy.
- Enter into strategic relationships and encourage collaboration at all levels of government to effectively use information technology.
- Meet customers' expectations for reliable and timely delivery of quality services and information.
- Manage and use IT resources efficiently.
- Establish statewide direction for information technology through fiscally responsible and active stewardship*.

GOALS, OBJECTIVES AND ACTION ITEMS

The Montana Information Technology Act (MITA) defines the State of Montana's policy regarding the use of information technology. The goals of this policy are to:

1. Create quality jobs and a favorable business climate
2. Develop IT resources in an organized, deliberative and cost-effective manner
3. Improve the quality of life of Montana citizens
4. Protect individual privacy* and the privacy of information contained within IT systems
5. Improve government services
6. Provide educational opportunities

The Information Technology Board (ITB) has identified this year's strategic plan objectives. They appear on the following pages, and are arranged according to the goal they support.

GOAL 1: CREATE QUALITY JOBS AND A FAVORABLE BUSINESS CLIMATE

Objective: Expand Montana's SummitNet Network

The State will expand its SummitNet* telecommunications network. The network will provide all citizens with a service entry point for state eGovernment* services, access to public data such as geospatial data and cadastral* property data, and provide the education community and local and state governments' access to most services available through the Internet.

The State will work with the private sector to promote expanded geographical coverage of its network backbone, including interfaces to private-sector network segments where appropriate.

Action Items

Information Technology Services Division (ITSD) will:

1. Conduct a needs assessment, define minimum levels of service, and develop a list of potential users of the network service.
2. Develop a conceptual design describing the opportunities and impact of an expanded network.
3. Work with the private sector to expand the network.

Agencies will:

1. Identify opportunities for the improved delivery of public service over a network that meets minimum standards throughout the state.
2. Expand citizen access to public non-confidential data that has economic value.
3. Evaluate these service opportunities and data access issues from the perspective of both public and private sector costs and benefits.

GOAL 2: DEVELOP IT RESOURCES IN AN ORGANIZED, DELIBERATIVE AND COST-EFFECTIVE MANNER

Objective: Implement Best Practices

Best practices* are methodologies to manage IT plans, processes, policies and projects in an efficient and effective manner. Best practices provide a positive financial return on investment, customer satisfaction, and project risk mitigation perspectives.

Action Items

ITSD will:

1. Expand the following support services to assist agencies in achieving successful IT projects
 - Project management*
 - Investment management*
 - Contract management*
 - Risk management*

Agencies will:

1. Use structured project management methodologies to manage a project's entire life cycle. Projects will be reviewed at completion to highlight lessons learned and archive project knowledge gained.
2. Develop departmental project management staff to effectively manage IT projects
3. Share IT resources (including data, information, expertise, and technology) to achieve economies-of-scale and minimize duplication
4. Continue emphasis on support and maintenance of existing IT systems

Objective: Implement New Technologies

The State will continue to encourage and promote the use of innovative technologies for delivering government services.

Action Items

ITSD will:

1. Conduct a survey to assess agency needs for innovative IT systems and emerging technologies.

2. The Chief Information Officer will create task forces and develop business cases* to evaluate strategies for using open-source standards. Policies will be developed to define State standards in these areas.
3. Research and develop statewide strategies for adopting and funding emerging technologies.

Objective: Provide Stable Funding

Information Technology (IT) is as essential to the State's basic infrastructure as its buildings, people, and equipment. Technology alone does not run state government, but it affects every aspect of its operations and services. It is critical to our productivity, services, products, and business processes.

Expanding and improving IT capabilities has historically been viewed as an expense, rather than a part of ongoing necessary operational investments. IT is an asset and should be managed as an asset.

The demand on the state IT infrastructure* to deliver services comparable to the private sector is increasing faster than current base year budgets can support. The level of IT funding and the funding process must be reevaluated. Montana will develop new approaches that enable long-term, enterprise*-wide investments and abandon current short-term funding approaches.

A new IT funding model with dedicated funding components, at the local, state and agency levels, will demonstrate IT's strategic importance to the State.

Action Items

ITSD will:

1. Evaluate current IT funding levels within agencies and across the Enterprise. Develop an implementation strategy to reach minimal funding levels and gain Executive and Legislative approval.
2. Evaluate the cost and benefits of leasing IT services, not owning them, as part of an overall funding plan.
3. Identify and evaluate alternative IT funding plans that incorporate some dedicated funding components. Develop an implementation strategy and gain Executive and Legislative approval.
4. Identify critical enterprise-wide IT projects that require enterprise-wide funding. Integrate the highest priority projects into the alternative IT funding plan.

Objective: Implement Workforce Development Plan

A Workforce Development* Plan will identify the process of recruiting new employees and developing existing employees to maintain a skilled and properly staffed IT workforce.

Information Technology (IT) plays a critical role in the delivery of nearly every state government service. This delivery of services relies upon a stable nucleus of state employees and contractors who provide specialized skills and fill gaps in staffing.

Action Items

Agencies will:

1. Conduct skills inventory and needs assessment. The IT skills inventory will be used to:
 - Establish a baseline and assist in planning future skill needs
 - Identify growth areas for existing employees
 - Develop future training needs
 - Provide direction to State agencies and educational institutions in setting IT training curriculum
2. Create individual IT staff development plans as part of the employee's annual performance evaluation. Summaries of employees' needs will guide training opportunities within the agencies and the state as a whole.
3. Prepare a succession plan for all critical management and technical positions.
4. Commit to creating a stable learning organization through expanded investment in training and development of employees.
5. Determine when employees are more appropriate and cost effective than using contractor services.

GOAL 3: IMPROVE THE QUALITY OF LIFE OF MONTANA CITIZENS

Objective: Improve Public Safety Communications

The State has taken a leadership role in planning for statewide public safety communications systems, used by state, local, and federal governments in Montana. Several agencies with public safety responsibilities are supporting of its deployment. The State supports an interoperable multimode radio communications system based on national standards to improve emergency response to the public.

Wireless* E9-1-1 is critical to emergency services in Montana. This service will enable emergency services to respond quickly by providing the dispatcher with critical location information from a caller on a wireless phone.

Action Items

ITSD will:

1. Facilitate further development of public safety radio standards and best practices*
2. Identify and explore additional funding scenarios for interoperable public safety radio
3. Expand wireless E 9-1-1 service to all Montana public safety answering points (PSAPs*)

GOAL 4: PROTECT INDIVIDUAL PRIVACY AND THE PRIVACY OF INFORMATION CONTAINED WITHIN IT SYSTEMS

Objective: Improve Enterprise Security and Identity Management

The State will improve interdepartmental coordination; conduct rigorous security assessments; participate in wide ranging security exercises and evaluations; adopt secure architectures; and mitigate security and privacy risks to its systems, infrastructure and data.

Natural disasters and catastrophic events, as well as attacks against our technology infrastructure and systems, can have a severe impact on the State's operations. The State must work to ensure systems are sufficiently protected and robust to maintain business continuity* of state government.

The State's possesses significant amounts of personal and confidential information. The risk of disclosure or inappropriate use of that information, makes privacy protection a paramount concern. The State's legal obligation to protect the confidential information about its citizens and businesses must be balanced against the public's legal right-to-know, as guaranteed in Montana's Constitution. A primary obligation of the State's IT community is the protection of confidential data from accidental disclosure, theft, and destruction.

An enterprise-wide approach is needed to fund and implement major security projects. The IT security implementation plan will center on IT components: network, servers, applications, and the main data center.

Identity authentication is important when state citizens, businesses, and other customers access state government services and information. The State will establish a common plan for identity authentication solutions to insure secure and authorized access to information for state employees, business partners and citizens.

Action Items

ITSD will:

1. Implement statewide security policies, standards and identification tools to help eliminate structural vulnerabilities from the state's IT architecture and systems. This enables more uniform and robust security measures to be implemented.
2. Conduct a rigorous administrative review, physical testing and evaluation of state IT security and recovery programs. This will strengthen security measures, improve security awareness and lead to improved disaster response.
3. Develop a statewide security risk mitigation plan after analyzing available operational recovery readiness information and IT security risks throughout the state.

GOAL 5: IMPROVE GOVERNMENT SERVICES

Objective: Expand eGovernment Services

Since 1999, the state has expanded its electronic government (eGovernment*) services to the citizens and businesses of Montana. Montana eGovernment services received national recognition and numerous awards.

Expanded services will remain focused on mt.gov, the State's official website, and increased accessibility for the visually impaired through awareness, testing and adoption of emerging assistive technologies.

The state is committed to continue to develop and enhance eGovernment IT technical infrastructure.

Action Item

ITSD will:

1. Expand and attract additional citizens to state eGovernment services by offering an increased variety of services, an intuitive common look and feel web designs, and continued updating and adopting of assistive technologies for the visually impaired.

Objective: Expand Geographic Information Technology Services

Geographic information technology systems provide Montana with the needed tools and information to analyze critical issues such as economic development, quality growth, and emergency management.

Action Items

ITSD will:

1. Share geographic data across the Enterprise.
2. Require new agency applications and systems to consider geographic technology and data as a part of the design.

Objective: Expand Business Continuity and Disaster Recovery Planning

Montana's ability to continue to provide state government services in the event of natural or man-made disasters, is a primary focus for state government IT managers. The Information Technology Board (ITB) and the Information Technology Managers Council (ITMC) support enterprise business continuity* and disaster recovery planning.

Montana will work toward developing a business continuity and disaster recovery plan that includes having back up facilities (equipment, office space, etc.) and backup procedures and processes in place before the disaster occurs. Successful recovery efforts at the local, state or federal levels requires IT system continuation.

Action Items

ITSD will:

1. Expand agency planning for continuing and recovering government operations. Montana's disaster and emergency plan requires each agency to have its own continuity of operations and disaster recovery plan. Disaster and Emergency Services (DES), and Department of Administration will finish deployment of the Living Disaster Recovery Planning System (LDRPS) software to agencies to complete their business continuity and disaster recovery plans.
2. Replace the State's data center in Helena and build a redundant data backup and recovery by a facility located outside of Helena. The State's current data center is inadequate to provide state of the art or best practice* infrastructure availability for business continuity or disaster recovery efforts. The new data centers can provide local entities with superior capability to protect data and continue business operations in the face of a disaster.
3. Encourage and include local government and other local entities participation in State business continuity and disaster recovery efforts.

Agencies will:

1. Develop, maintain and exercise continuity of operations and disaster recovery plans.
-

GLOSSARY

Best Practices	An implemented practice that has been shown to perform optimally through time. As processes and procedures are defined and implemented, patterns can be seen that show the best process and procedure for a business unit, functional area, or type of functionality.
Business Case	A structured proposal for a business project that supplies information to decision makers. A business case usually includes an analysis of business process performance and associated needs or problems, proposed alternative solutions, assumptions, constraints and a cost-benefit analysis.
Business Continuity	The sustaining of normal business operations during both expected and unexpected events that would otherwise impair the normal functioning of the State. This involves around-the-clock ability to recover from both manmade and natural disasters and includes assets beyond information technology such as facilities, personnel, critical knowledge, and physical information.
Business Process	The manual or automated process steps that are performed in order to accomplish a government service. Example: In producing payroll checks an organization must collect employee timesheets, verify timesheets, run pre-payroll reports, run payroll check runs, and sign payroll checks.
Cadastral	Related to the legal record of land ownership for the basis of taxation.
Contract Management	Ongoing monitoring and management of the provision of services in line with the agreed terms and conditions
Customer	Citizens, businesses, federal, local, and tribal governments, and other organizations and stakeholders that utilize Montana State services.
EGovernment	The provision of government services via computer or Internet-based technology.
Enterprise	All agencies of the State, including the University system and participating local government and educational entities, working collaboratively to use, share, and leverage the investments made in information technology. To this end, agencies of the State and participating entities share systems and networks, use standard software and hardware, and train employees in common techniques.
Information Technology	Technology, typically in the form of computers, software, networks, telecommunications, electronic storage, etc., that enables the storage, communication, manipulation, and access to information.
Investment Management	IT projects and systems are managed like a portfolio of investments. They are evaluated against business and IT strategies, prioritized, assessed for risk and scheduled to match available funds.

IT Infrastructure	All information technology hardware and software that cumulatively provides a common foundation of equipment and applications that is shared among all entities of the enterprise. Examples: network hardware/software, LAN/WAN, mainframe and mid-tier computer equipment, storage devices, security hardware/software, etc.
LDRPS	Living Disaster Recovery Planning System or LDRPS is a software package designed by Strohl Systems. This software allows State agencies to input their Continuity of Operations (COOP) recovery plans into a standard format so that all plans can be combined into one Continuity of Government (COG) plan for the State of Montana.
Privacy	The right of individuals to keep information pertaining to themselves from being given out to other individuals and businesses.
Project Management	The application of knowledge, skills, tools, and techniques to project activities to meet project requirements.
PSAP	Public Safety Answering Point A physical location where 911 emergency telephone calls are received and then routed to the proper emergency services.
Risk Management	The identification, assessment, and mitigation actions that minimize and control the risks of implementing and operating IT systems.
Security	Measures taken to guard against unauthorized access or use of information and equipment.
Service(s)	A function that provides access to public information, enables business activity, and addresses the needs of State customers.
Stewardship	The careful management of something placed in one's care.
Strategies	Measurable activities to be performed for the purpose of attaining the goals defined in the Integrated Information Technology Strategic Plan.
SummitNet	The State of Montana's high-speed digital data communications network. The next generation of SummitNet will completely integrate voice, video, and data transmission services around the State.
Wireless	The connection of electronic devices through the use of radio waves, without the use of wires. This typically refers to communications using telephones or computer devices.
Workforce Development	The recruitment, succession planning, and training plans that focus on ensuring the State has an adequately skilled IT workforce.

APPENDIX B

SAMPLE PERFORMANCE MEASURES FOR THE STATEWIDE INFORMATION TECHNOLOGY PLAN



MONTANA LEGISLATIVE BRANCH

Legislative Fiscal Division

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Legislative Fiscal Analyst
CLAYTON SCHENCK

DATE: September 28, 2006

TO: Legislative Finance Committee

FROM: Greg DeWitt

RE: Sample performance measures for the statewide information technology plan

At your March 2006 committee meeting, you asked the Department of Administration for performance measures they will use to assess the progress made toward implementing the 2006 update of the state strategic information technology plan in the 2006 biennial report (a requirement of 2-17-521, MCA). The attached sample performance measures were provided by the Department of Administration.

For your reference, the latest strategic plan can be viewed at the following Internet address:

<http://itsd.mt.gov/stratplan/statewideplan.asp>

Please contact staff if you would like a printed copy of the plan.

S:\Legislative_Fiscal_Division\LFD_Finance_Committee\LFC_Reports\2006\October\Cover_ITPlanPerfMeasures.doc

Sample Performance Measures

The following sample performance measures only address the specific goals of the current State IT Strategic Plan. They do not address IT industry best practices.

Expand Summitnet

- Percentage of state employees that are connected at T1 speeds or better. Goal is 95%.
- Number of Sites serviced by SummitNet. Goal is 100% of communities with a population of XXX or higher.
- Network utilization (by line) as a percent of network capability: Goal is 90% of capability in peak periods or average daily utilization not to exceed 60%.
- Number of registered devices connected to the network: Benchmark to show relative growth of the network.

Implement IT best practices

1. Project Management

- Percentage of all major IT projects that finish within 20% of all scope, time and budget objectives. Goal is 80%.
- Percentage of projects that meet specific quantified project business goals (assessed 6 months after project completion). Goal is 80% of quantifiable measures.
- Percentage of major projects that have a contingency fund. Goal is 100%
- Percentage of major projects that have a certified project manager (State employee or contractor) representing the agency. Goal is 75%.
- Number of staff trained in project management. Number of accumulated class hours in project management.

2. Portfolio (asset) Management

- Percentage of applications/systems rated as 1, 2, or 3 (criticality) running on supported hardware and software platforms. Goal is 100%.
- Percentage of applications/systems rated as 1, 2, or 3 (criticality) that are more than 10 years old. Goal is to be under 10%.
- Percentage of applications/systems rated as 1, 2, or 3 (criticality to enterprise operations) that are identified as obsolete and have been addressed with a current strategic initiative. Goal is 100%.

Implement new technologies

- Number of PDA's in use
- Number of Wireless Network HOT Sites
- Age of Servers in years. Goal is to replace servers every six year Bench Mark is every 5 years
- Age of PCs in years. Goal is to replace PCs at a minimum of every 5 years or 20% a year. Bench Mark is every 4 years.
- Video conferencing Capability
- Video Conferencing Utilization
- (see e-government services)

Provide stable funding

- State IT expenditures as a percentage of all state expenditures. Goal 80% of the national average for all states
- IT Budget as a percent of Total Revenues. Goal is 7.5% (80% of the national average of Government Industry) Bench Mark is 9.7% <http://www.itmweb.com/blbenchbgt.htm>
- IT expenditures per state employee. Goal is 80% of the national average for all states.

Implement workforce development plan

- State IT expenditures on training. Goal is to exceed the national average for expenditures per IT employee and days of training per IT employee.
- Number of IT Staff receiving IT related training on an annual basis. Goal is 80%
- Average hours (days) of training per IT employee. Goal is a 5% annual increase. Bench mark is national average.
- State IT staffing as a percentage of all state employees. Goal is 6% or 80% of the national average. Benchmark is 6.6%
- IT Employee Turnover: Retention (attrition) rate of IT employees. Goal is to be higher (lower) than national/state average.
- IT staff assigned as a percentage of required/authorized. Goal is 90% (adjusting for normal attrition due to retirement)
- IT vacancy fill time. (as compared to other professional positions)
- Ratio of Internal IT Employees to IT Contractor Outsourcing. Benchmark 80% internal 20% contractor

Improve public safety communications

- Number/percentage of counties/population covered by law-enforcement public safety radio.
- Number/percentage of counties/population covered by E-911 services.

Improve enterprise security and identity management

- Number of critical (rated 1, 2, or 3) applications/systems covered by a disaster recovery plan. Goal is 100%
- *Number of critical (rated 1, 2, or 3) applications/systems covered by a disaster recovery contract or hot backup system. Goal is 100% (redundant?)*
- Number of incidents where confidential data is lost or compromised. Goal is 0 incidents.
- Number of incidents where any data is lost. Goal is 0 incidents.
- Number of successful intrusions as a percentage of total attempts

Expand e-government services

- Number of e-gov applications offered. (Currently 81 services listed at <http://mt.gov/services/allservices.asp>, 20 are new representing a 32% increase).
- Customer satisfaction? (survey needed? To determine satisfaction and additional services desired)
- Number of Montana Portal Users (requires individual password and monthly billing). Goal is a 5% annual increase in registered users. <http://app.mt.gov/registered/>
- Percent of *Serviced* Population that utilizes e-government services. Goal is benchmark and show an increase or decrease in utilization as measured in key areas. (e.g. # of temporary vehicle registrations, # of hunting/fishing licenses sold on line. etc.)
- Number of Hits
- Number of Transactions

APPENDIX C

INTEROPERABILITY MONTANA PROJECT FACT SHEET

Interoperability Montana Project Fact Sheet

<http://interop.mt.gov/>

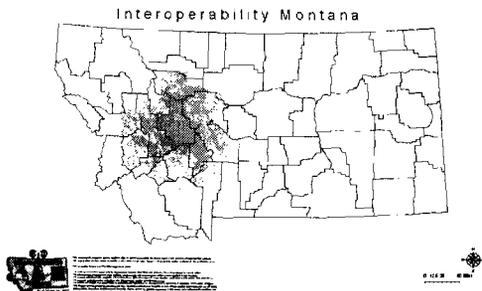
Prepared by Mark Adams, IM Project Manager, Northrop Grumman

April 2007

The State of Montana's Homeland Strategic Plan requires the establishment of a Montana-wide, interoperable communications public safety system. To that end nine Montana Consortia directors formed the Interoperability Montana (IM) Project through a Memorandum of Understanding signed on November 14, 2005.

The nine consortia (I-15-90 Corridor, Big Sky 11, Central Montana, Eastern Tier, Northern Tier, South Central Montana, Tri-County and the Western Interoperability Consortium. Mobile Data Terminal), now with 3 State of Montana agencies (Highway Patrol, Department of Transportation, Department of Natural Resources and Conservation), collectively represent all 56 Montana counties and 7 tribal nations in addressing their public safety communications needs. Joining the IM Project are multiple partners at the local, state, tribal and federal level.

The IM Project is building on Concept Demonstration Project I (CDP I) and Concept Demonstration Project II (CDP II) to create a system which will seamlessly link voice and data systems used by federal, tribal, state, local, and private sector public safety responders.



CDP I Coverage

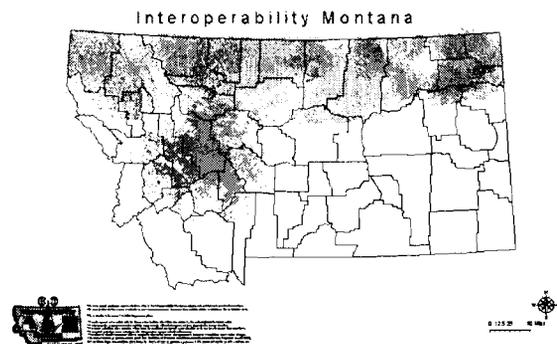
Concept Demonstration Project II

CDP II is currently under development in the NTIP and is scheduled for completion in Fall 2008. It builds off of CDP I and links 23 radio sites into the IM system.

CDP I and CDP II (when operational) will provide a single public safety communications system that serves 13 counties and 4 Indian Nations, with radio communications along Montana's 550 mile border with Canada.

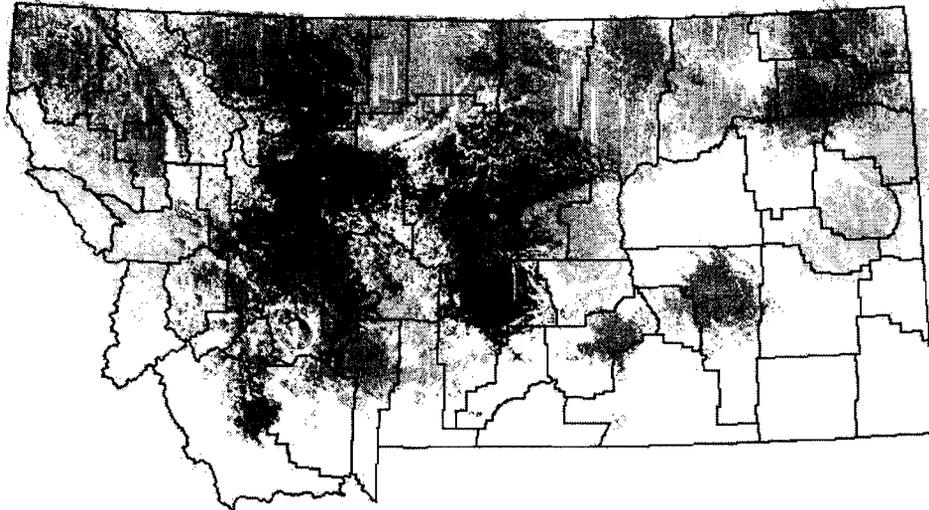
Concept Demonstration Project I

CDP I was completed in Lewis & Clark County and established an 11 site P25 trunked-hybrid Motorola Smartzone system consistent with the SIEC Definition and Technical Requirements.



CDP I & II Coverage

Interoperability Montana



IM Phase I Coverage

Interoperability Montana

The Interoperability Montana Project continues to build out public safety communications by linking 29 additional sites into the system. These sites incorporate the latest in communications site standards for grounding, power and data connectivity. They are connected through a high-capacity protected digital microwave backbone.

IM Project Directors

Providing project definition and oversight are the directors of the nine consortia throughout the state plus the three state agencies. The directors wholly represent the local communications needs of their communities and work together to collaboratively build a shared system designed to improve the safety of their residents and the responders who serve them.

IM Governance Committee

The IM Governance Committee works under the guidance and direction of the IM Project Directors and is tasked with defining a structure which addresses short and long term maintenance and governance of the IM system.

IM Technical Committee

The IM Technical Committee also works under the guidance and direction of the IM Project Directors and is tasked with the design and development of the IM system. The IM system is designed under guidelines provided by the Senior Advisory Committee:

- All consortia see improvement.
- Sites should be on or a single hop away from the digital microwave backbone.
- Sites should fill in dead spots that will be located along the backbone once it is completed.
- Trunk sites should cover major transportation arteries or population centers.
- Sites should have a significant impact on multiple consortia and/or multi-jurisdictions.
- The IM should address projects that exceed scope and ability of local/tribal funding.

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