State of Montana

2013 Biennial Information Technology Report

This is the sixth State of Montana Biennial Information Technology Report prepared under the authority of the Montana Information Technology Act of 2001. It is published every two years unless special interim plans become necessary.

STATE INFORMATION TECHNOLOGY SERVICES DIVISION
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TABLE OF ABBREVIATIONS

ACA	Affordable Care Act
ACS	Affiliated Computer Services, part of IBM, Inc.
AGR	Department of Agriculture
ALS	Automated Licensing System (FWP)
AWACS	Agency Wide Accounting Client System (DPHHS)
BCC	Board of Crime Control
BPE	Board of Public Education
CAPS	Child and Adult Protective Services (DPHHS)
CCUBS	Child Care Under the Big Sky (DPHHS)
CDS/HMIS	Central Database System / Homeless Management Information System (DPHHS)
CHIMES	Combined Healthcare Information in Montana Eligibility System (DPHHS)
CMMS	Computerized Maintenance Management System (MDT)
COOP	Continuity of Operations
COR	Department of Corrections
CPP	Commissioner of Political Practices
CSED	Child Support Enforcement Division, Department of Public Health and Human Services
CSI	Commissioner of Securities and Insurance (State Auditor)
DDP	Developmental Disabilities (DPHHS)
DEQ	Department of Environmental Quality
DLI	Department of Labor and Industry
DMA	Department of Military Affairs
DNRC	Department of Natural Resources & Conservation
DOA	Department of Administration
DOC	Department of Commerce
DOJ	Department of Justice
DOR	Department of Revenue
DPHHS	Department of Public Health & Human Services
EBT	Electronic Benefit Transfer (DPHHS)
FEMA	Federal Emergency Management Agency
FRB	Federal Reserve Building, Helena
FWP	Department of Fish, Wildlife and Parks
FY	Fiscal Year (For Montana, July 1 - June 30)
GED	General Education Development (also known as the High School Equivalency Diploma)
GEMS	Growth and Enhancement of Montana Students (OPI)

GIS	Geographic Information System
GOV	Governor's Office
HKM	Healthy Kids Montana (DPHHS)
HRDC	Human Resource Development Council
ICP	Individual Cost Plan (DPHHS)
IdM	Identity Management
IIS	Immunization Information System (DPHHS)
IT	Information Technology
kW	Kilowatt
LIV	Department of Livestock
LOT	Montana State Lottery
MAC	Montana Arts Council
MACWIS	Montana Automated Child Welfare Information System
MCDC	Miles City Data Center
MDIU	Martz Diagnostic and Intake Unit, Montana State Prison (COR)
MDT	Department of Transportation
MHP	Montana Highway Patrol
MHS	Montana Historical Society
MIDIS	Montana Infectious Disease Information System (DPHHS)
MITA	Montana Information Technology Act
MOU	Memorandum of Understanding
MPERA	Montana Public Employees Retirement
MPLS	Multi-Protocol Label Switching
MS SQL	Microsoft Structured Query Language
MSDB	Montana School for the Deaf and Blind
MSF	Montana State Fund
MSL	Montana State Library
MSP	Montana State Prison (COR)
NIST	National Institutes of Standards and Technology
OCA	Office of Courts Administrator
OCHE	Office of the Commissioner of Higher Education
OPD	Office of the State Public Defender
OPI	Office of Public Instruction
PAD	Property Assessment Division, Department of Revenue
PII	Personally Identifiable Information
PSC	Department of Public Service Regulation
RFP	Request for Proposal
SAN	Storage Area Network
SCEG	Select Committee on Efficiencies in Government

SEARCHS	The System for Enforcement and Recovery of Child Support (DPHHS)
SITSD	State Information Technology Services Division, Department of Administration
SMDC	State of Montana Data Center
SNAP	Supplemental Nutrition Assistance Program (DPHHS)
SOS	Secretary of State
STAARS	Status, Tax Accounting, Audit, & Rating System (DLI)
TANF	Temporary Assistance for Needy Families (DPHHS)
TEAMS	The Economic Assistance Management Systems (DPHHS)
TLMS	Trust Lands Management System (DNRC)
TRS	Teachers Retirement System
USDA	United States Department of Agriculture
VLAN	Virtual Local Area Network
VPN	Virtual Private Network
WIC	Women, Infants, and Children

FOREWORD

The Montana Information Technology Act (MITA) directs the Department of Administration (DOA) to assess the status of the executive branch information technology every two years (2-17-521, MCA). The vehicle for this analysis is the Biennial Information Technology Report. The report must contain:

- an analysis of the state's information technology infrastructure;
- an evaluation of performance relating to information technology;
- an assessment of progress made toward implementing the state strategic information technology plan;
- an inventory of state information services, equipment, and proprietary software;
- agency budget requests for major projects; and
- other information as determined by the department or requested by the governor or the legislature.

The biennial report represents a time to pause and assess how the IT efforts of the State of Montana deliver value to citizens. To advance Montana, the state government must find cost-effective IT solutions, continue to press for innovation, secure information against attack, and seek efficiencies – all while meeting citizen expectations. The biennial report reviews how well the state balances these sometimes complementary – but often competing – objectives.

In order to complete this analysis, this report contains the following sections:

- Evaluation of Statewide Performance
- Progress Against the 2010 State Strategic Plan for Information Technology
- Agency Accomplishments
- Major Actions Regarding State of Montana Information Technology
- Status of the Information Technology Infrastructure
- Inventory of Statewide Services, Equipment, and Software
- Major Information Technology Projects for FY 2014-2015
- Future Information Technology Trends Impacting Montana

CONTRIBUTION LIST

The following agencies submitted performance reports that contributed to the 2013 Biennial Information Technology Report:

- Board of Crime Control
- Board of Public Education
- Commissioner of Political Practices
- Department of Agriculture
- Department of Administration
- Department of Commerce
- Department of Corrections
- Department of Environmental Quality
- Department of Fish, Wildlife and Parks
- Department of Justice
- Department of Labor and Industry
- Department of Livestock
- Department of Military Affairs
- Department of Natural Resources & Conservation
- Department of Public Health & Human Services
- Department of Public Service Regulation
- Department of Revenue
- Department of Transportation
- Governor's Office
- Montana Arts Council
- Montana Historical Society
- Montana Public Employees Retirement
- Montana School for the Deaf and Blind
- Montana State Fund
- Montana State Library
- Montana State Lottery
- Office of the Commissioner of Higher Education
- Office of Public Instruction
- Office of the State Public Defender
- Secretary of State
- State Auditor's Office
- Teachers Retirement System

EVALUATION OF STATEWIDE PERFORMANCE

The State of Montana continues to make progress on multiple IT fronts. In spite of economic pressures, changing regulatory requirements, and increased security threats, Montana IT contributes to the effectiveness of government and the welfare of citizens. Montana has made IT a central part of governmental business; without the IT infrastructure, few services could be provided to citizens. However, Montana has moved beyond IT as a support sector. Rather, IT makes concrete contributions to government's ability to provide for safety and welfare of the state. In this vein, areas of noteworthy achievement over the last biennia include collaborative initiatives, efficiency efforts, cyber security, and software asset management.

Collaboration

The Great Recession has increased pressure on state and local governments to do more with less; states must question the status quo and find new and innovative ways to serve citizens. One way Montana is meeting this demand is with IT collaboration between and within governmental entities. Benefits of collaboration include obtaining purchasing power and discounts not available individually and offering greater efficiencies and economies of scale. Several examples exist of such work:

- Montana spearheaded a multistate procurement for GIS storage in a cloud environment. Using the Western States Contracting Alliance, Montana, Oregon, Utah, and Colorado were able to leverage their collective purchasing power to drive down costs for storage of vital economic data. The endeavor was so successful that other states and governmental entities have lined up to take advantage of the reduced costs.

- Montana has been working with Oregon on collaboration of disaster recovery services. This partnership came out of conversations between the states on what each other's recovery needs were and what limitations were imposed by current commercial providers. Oregon needed recovery services that were affordable and met security requirements; Montana's SMDC filled these requirements. This collaboration has allowed Oregon to locate equipment in Montana data centers bringing safety to Oregon and reduced costs to Montana.

- DPHHS and FWP entered into an agreement in the fall of 2010 that resulted in the sharing of information between the DPHHS death registry and FWP's Automated Licensing System (ALS). A monthly process was set up to match deceased person records against ALS and flag appropriate matches, improving data accuracy.

- The Department of Corrections is a founding member of the National Consortium of Offender Management Systems. This organization of states shares knowledge, best practices, and lessons learned in the development and management of Offender Management Systems. The consortium also provides a fully-functional Offender Management System to any member state. Members are free to adapt the system to meet

their needs. As a part of this work, Montana is working with the Alaska Department of Corrections to development a collaborative module. The consortium model has been so successful, that Montana DLI used the template – along with COR help – to develop a labor and industry consortium.

Efficiency

With the economic downturn of 2007, Montana was forced to accelerate its IT efficiency efforts. Many of the initiatives that were started four years ago have now born fruit. Because of such work, the State of Montana has made strides to increase efficiency, reduce costs, and find innovative solutions to problems. Many examples of this exist:

- Through an aggressive migration to server virtualization, Montana has seen an energy reduction of 10.4 million kWh, a reduction of 14 million pounds of CO^2 emissions, and hardware and energy savings of over $3 million dollars since 2010.

- DPHHS implemented many new systems including CHIMES-SNAP, CHIMES-TANF, CHIMES-EA, and the Document Management System that greatly improved cross-functional unit collaboration and unified operations both operationally and geographically. In the case of the CHIMES systems, the implementation replaced legacy, end-of-life applications which would have caused additional expense in maintenance costs to keep operational.

- Video conferencing has become a routine way of doing business for state agencies. DEQ, DLI, DNRC, DOA, DOC, FWP, and DPHHS have all incorporated video conferencing into their operations. These efforts cover a wide swath of state work including employee training and public meetings. The net result has been to drive down costs with minimal loss in effectiveness.

- Electronic records and document management has emerged as an area of cost savings and efficiency. By removing the need for paper, agencies are able to operate more quickly with less cost given to document printing, transport, and storage. DPHHS, MPERA, OPD, CSI, BPE, DEQ, DOA, TRS, MHS, and MSL initiated electronic records initiatives. This allows the agencies to be agile, quickly respond to constituents, and save money.

Many of the next efficiency steps will come in finding common business requirements across multiple agencies. For example, a statewide electronic document management system may find additional monetary efficiencies by leveraging the purchasing power of the state and creating common statewide business processes.

Cyber Security

In July 2012, the State CIO implemented a requirement for agencies to develop their cyber security programs based on the National Institute of Standards and Technology (NIST) security standards. Each agency has begun working on their individual programs and progress varies

among the agencies. SITSD solidified its program associated with enterprise services and continues to add processes to increase the privacy and security of state information systems.

With the increase in cyber security breaches across the world, the State of Montana continually develops, updates, and enhances its operational security. Multiple accomplishments exist in this area:

- Device authentication verifies the identity of a device that gains access to the state network to ensure the device is owned and managed by an authorized entity. The implementation of a system, 802.1x, to accomplish this verification across the enterprise is nearing completion. It will ensure no rogue or unauthorized devices connect to the statewide network.

- Multi-factor authentication uses of two or more forms of identification to allow access for a user to a system. The state is currently implementing such authentication for statewide systems.

- Vulnerability scanning is a process that ensures all services that are opened to the internet have been scanned for vulnerabilities. The state now scans on an annual basis to ensure no vulnerabilities exist to allow data breaches or other compromises to systems.

- The state has implemented the enterprise cyber security audit process, which includes a review of all enterprise information systems to confirm compliance with policies, procedures, and best practices.

- The staff assistance visit program was started which provides direct support to requesting state agencies in areas such as risk assessment, policy development, training, and information security management plans.

The state's cyber security program also has some challenges. Due to the lack of a Chief Information Security Officer (CISO) with a coordinated effort to guide cyber security needs and requirements, many elements of a solid program are left undone. These elements include:

- implementation of an enterprise data protection system through user access control and verification;

- completion of a statewide security risk assessment, penetration testing, and risk mitigation;

- compartmentalization of the network to isolate critical or confidential systems from other low or medium security level systems; and

- development of an enterprise security training program.

To start to address these issues, a CISO was appointed on April 5, 2013.

Software Asset Management

The State of Montana has started to tackle the complex, and often expensive issue of management of software licensing. Software publishers are increasingly conducting audits to ensure compliance with accounting requirements and as a means of increasing revenues. As software licensing schemes become increasingly complex, the risk of an unsatisfactory compliance audit grows. Software asset management became an issue for Montana in 2008 when the Attachmate audit revealed a serious deficit in the state's ability to monitor and manage software usage.

Over the past biennia, the state has set up a software asset management office to grow knowledge and capabilities. These efforts have shown results saving the state money that would have otherwise gone to pay fines. Currently, the software asset management office is taking control of the management of statewide software contracts, licenses, and acquisitions. Additionally, the office is working on a number of internal processes to better manage the increasing demands. Furthermore, software asset management is only the first step in a much larger effort that needs to encompass all parts of IT asset management.

PROGRESS AGAINST THE 2010 STATE STRATEGIC PLAN FOR INFORMATION TECHNOLOGY

Every two years, the Department of Administration is required to update the State Strategic Information Technology Plan. This plan establishes the statewide mission goals and objectives for the use of information technology and sets general direction of the state's information technology related efforts. The Department of Administration is required to evaluate the progress towards implementing the strategic plan as a part of the Biennial Information Technology Report.

The State Strategic Plan should not be confused with the Agency Information Technology Plans. These documents are created by each agency to reflect how they used information technology to fulfill agency organizational goals. Both the State Strategic Information Technology Plan and the Agency Information Technology Plans are used when reviewing information technology procurements by agencies.

For a list of accomplishments by agency over the last biennia, see page 17.

Goal 1: Involve Communities of Interest with common and/or related business objectives in Information Technology strategic planning.

Communities of Interest are formalized groupings of individuals or groups working on similar problems or sharing similar concerns. Through these groupings, this goal recognized the need to involve interested groups in planning. By doing so, the state develops "IT resources in an effective and efficient manner and provide stable funding for long-term, enterprise-wide IT investments".[1] Objectives of this goal included the development of IT resources in an organized, deliberative and cost-effective manner, utilizing best practices to plan and implement information technology systems, gaining economies of scale, minimizing duplication and using innovative technologies to deliver government services.

The Montana Integrated Justice Information Sharing (MIJIS) Advisory Group best exemplifies the states progress towards this goal. Steve Bullock, as Attorney General, established the MIJIS comprised of representatives from DOJ, COR, DPHHS, MDT, OCA, BCC, and SITSD. MIJIS now advises the Attorney General on ways to improve the information sharing of public safety information by coordinating justice-related technology initiatives using standardized and cost-effective methods.

Additionally, ITMC supports the development of communities of interest. However, these are more *ad hoc* groupings rather than formalized groups as previously defined and outlined in the

[1] 2010 Montana State Strategic Plan, available at: http://itsd.mt.gov/content/stratplan/statewide/MT_IT_Strategic_Plan_2010_1_April_2010_final.pdf

State Strategic IT Plan. The work of these groups should not be discounted as they have greatly added to work towards this strategic goal.

Goal 2: Implement common business applications and shared services across governmental units

Common business applications and shared services seek to bring down the cost for the government as a whole by reducing financial outlays for individual agencies. If multiple groups use the same system, they share costs and do not incur the expenses of separate IT resources. Objectives of this goal included reducing unnecessary duplication, expanding the sharing of data, supporting existing infrastructure, and promoting transparency.

Examples of work in towards this goal included:

- The AGR, DOC, DNRC, and FWP cooperatively procured and now manage a grant and loan management system with internet access. The system has streamlined the grant application, review, tracking, and payment process. The new system saves agency personnel and applicants time and money. For example, AGR realized thousands of dollars in savings associated with printing, copying, and mailing grant documents.

- DOR and SITSD worked together to improve the security and administration of the DOR servers. The enhancements provide DOR with dedicated, segregated servers located in the SMDC, creating a more secure environment for confidential data. In the event of an incident, the segregated environment also eases information sharing, thus closing communication gaps.

- DNRC published authoritative GIS datasets in a widely-accessible format. This allows DNRC to assist other state and federal agencies to provide data – such as water rights or wildfire information – in an easily-used manner.

- The DLI Licensing Standards System provides comprehensive data management and egovernment licensing for 40 boards/programs and the approximately 150 license types. This information is shared across two different bureaus. This unified approach allowed for reduced costs with increased operational effectiveness.

DOA, through SITSD, also provides a host of shared services as part of its statewide service offering. Additionally, agencies have started to collaborate with one another (see page 13), which can provide additional shared services. This approach is crucial for greater resource and monetary efficiency for Montana in the future.

Goal 3: Create Quality Jobs and a Favorable Business Climate

This goal focuses on the role of IT as a driver of business in the information age. By encouraging IT, the state can accelerate its economy. Without a strong IT component, many of Montana's traditional industries – mining, agriculture, timber, energy, tourism – simply fail. It is incumbent

upon the government to ensure that all assets, including IT, are used to encourage a vibrant, prosperous state. The original objectives of this goal centered on expansion of the statewide network. However, agencies took this goal in a different direction, directly using IT to help the business climate of the state.

Notable examples include:

- The Governor's Office fully deployed the Montana Means Business web portal. This is a fully functional, customized geospatial web application for the search, discovery, and delivery of marketing, demographic, and property information necessary to improve Montana-centric business decisions.

- DOR provided access to online unclaimed property filing and online auctions for unclaimed property held by the state, provided counties online file-and-pay options for centrally assessed taxes, and provided citizens secure and convenient mobile file-and-pay options for wireless devices. DOR has also added the ability to pay income taxes via mobile application. The department continues to add file and pay options on a regular basis.

- Department of Commerce and the Department of Labor and Industry took control of the Statewide Business Expansion and Retention project. This allows users to conduct expansion and retention surveys of all business sectors and immediately determine red-flag issues and problems that impede or assist economic development in a specific locale.

Hardware additions – specifically the expansion of the state network – did not drive fulfillment of this goal. Instead, agency efforts to use IT resources to meet business issues were the motive factor. In the future, such developments independent of network resource growth may not be possible.

Goal 4: Protect Individual Privacy and the Privacy of Information Contained Within IT Systems

Governments have a duty to defend the privacy of individuals and protect the information they hold. Considering the data governments hold, this has always been a challenge. However, the numerous attacks on government IT over the past few years have only served to increase the difficulty of protecting this information. This goal focused on the importance of having a robust defense and ensuring that information is properly protected even while the government serves its citizens.

Examples of work in this area include:

- DOR implemented Symantec Endpoint Encryption. Symantec Endpoint Encryption provides DOR with the tool needed for creating, distributing, enforcing, and monitoring security policies on endpoint devices without forcing users to make security decisions or adjust settings. Symantec Endpoint Encryption secures data stored on devices and on removable media by encrypting files so the files can only be read by authorized users.

This protects sensitive taxpayer information should a portable device be lost or stolen. Symantec Endpoint Encryption also prevents intentional or inadvertent transmission of data to removable storage devices.

- Multiple agencies including DPHHS, CSI, MSF, COR, LIV, and DOJ have conducted advanced work on security programs. These efforts transcend technology to ensure that information is secure, regardless of the medium in which it is stored.

- DOA, DOJ, DPHHS, MDT and other agencies formed a team to evaluate identity management issues, options, and recommendations. The team made recommendations regarding identity management. Additionally, they endorsed the investigation and procurement of an IdM solution.

The cyber threats to governments have and will continue to grow. Proactive planning represents the only way to effectively protect the information resources of the state. Going beyond the confines of this goal, Montana has made great progress with cyber security in general (see page 10). However, work will always be needed to keep pace with the ever-evolving threats.

AGENCY ACCOMPLISHMENTS

The following is a list of all agency accomplishments listed as complete or substantially complete on biennial performance reports from agencies. If a project or initiative was listed as not complete, deferred, delayed, or cancelled, it will not be listed. Requests for particular agency information can be made to the State information Technology Services Division (itpoicy@mt.gov) or to the agency directly.

Board of Crime Control

- **Supported the Grant Management Information System.** The Grant Management Information System has increased the efficiency of information sharing for sub-grantees and staff. BCC staff worked with stakeholders to ensure Grant Management Information System participation by local agencies is continually increasing. This includes enhancing the Grant Management Information System, the Online Sub Grant Application System, and Grant Web Information System.
- **Continued maintaining and enhancing crime data collection systems including the National Incident Based Reporting System Juvenile Detention Tracking System, Indian Lands Crime Data Collection, Drug Task Force Crime Data Collection, Juvenile Offense Statistical Data, Adult Detention Center System, Law Enforcement Manpower Database, Victims of Domestic and Sexual Violence database.** BCC improved the error rate of the data being collected and analyzed for adult, juvenile, and crime victims. Reliable statistical data is now being provided to Montana agencies and the FBI. Additionally, detention center data is being analyzed for compliance and violations are being reported.
- **Continued to improve the utilization of Crime in Montana publication for the process of analyzing crime.** BCC increased acceptance and usage of the publication, ensuring analysis is accurate and provides useful statistical information to readers.
- **Maintained and enhanced public web site with Montana crime data and information to improve the ease of access to Montana crime data and important public safety information to citizens.** BCC continually assesses the avenues that consumers access the site for ease of use.
- **Provided IT support for public safety conferences.** Because of this, BCC increased the overall sharing and networking of knowledge within the Montana public safety community.
- **Maintained desktop workstations at current technology levels.** BCC improved the effective utilization of workstation technology. BCC has upgraded 90% of its core system software and replaced 75% of its outdated and legacy hardware and software.
- **Provided data and desktop security through pro-active security protection and regular monitoring.** BCC continues to improve the security of information utilized by staff and actively monitor computers for malware and viruses.
- **Provided redundant backup and restore capabilities for all agency data and files.** BCC migrated 80 % of its data and files to SMDC and utilizes various computer system services from the SMDC.

Board of Public Education

- **Expanded use of technology.** BPE posts agenda packets for both board and advisory council meetings on-line including schedule of meetings, meeting minutes, and any pertinent news information posted on website.
- **Assessed IT hardware and software.** BPE conducted an IT hardware assessment at fiscal year-end 2012 and replaced old computers with 2 new laptops with docking stations, 1 PC, 3 new monitors, and an iPad.
- **Created in-house webmaster function.** BPE staff can now make updates and changes to the website independent of technical expertise.

Commissioner of Political Practices

- **Upgraded services to achieve ease-of-use and attractiveness.** CPP continues to collect ideas, needs, and public complaints to improve services as they are being re-built.

Department of Agriculture

- **Validated SITSD-hosted applications prior to and after SITSD moves to new data center.** AGR tested successful connection and data transactions with every SITSD hosted database and application in the SMDC environment.
- **Collaborated with DOC, DNRC, and FWP to implement web-based grant management system.** Through the system, AGR implemented electronic management of two Growth Through Agriculture grants and three noxious weed grants.
- **Implemented web content management system for department website.** AGR completed the roll-out of the new Department of Agriculture website, utilizing the OpenCMS allowing program staff to maintain own web content and present timely information to the agricultural community in a more efficient manner.
- **Implemented web-based submission of biennial noxious weed report data.** AGR coordinated input from a large number of agency and county stakeholders and implemented the web application allowing automated reporting.

Department of Administration

- **Increased the availability and use of alternative education delivery models to supplant classroom instruction, reduce costs, and increase outreach.** DOA continued to deploy and use new technology, particularly Adobe Connect and SharePoint, to deliver training, education, and information to our customers.
- **Increased customer satisfaction by identifying and meeting customer expectations and requirements for new applications or enhancements to existing applications.** DOA instituted more formal project approach and management methodologies. Additionally, it brought in contracted project managers and business analysts to facilitate this effort.
- **Ensured customer data is secure and that the Department maintains their individual privacy and integrity.** DOA continues to develop an information security program including taking measures to secure copier hard drives, demonstrating compliance with MCA 2-6-5 (Protection of Personal Information).

- **Designed and implemented self-service applications to allow stakeholders to conveniently and efficiently conduct their business with the Department.** DOA upgraded MINE last year as part of the SABHRS-HR upgrades, providing new functionality. Benefits enrollment is now conducted primarily on –line. State HR rolled out a new SharePoint application enabling hiring managers and HR professionals to share and find position description information and provide improved training and education on the hiring process. Additionally, DOA introduced a new MOM policy system, enabling customers to more easily find policies and provide policy owners a better system and workflow for maintaining policies.
- **Enabled more efficient business processes by providing web-based services to eliminate paper forms, redundant processing steps, manual processes, and excessive data handling.** Banking and Finance Division implemented scanning to eliminate paper and streamline processes and is now implementing a fully-integrated system to automate their bank examination processes and digitize information and eliminate hard copy documents. The Local Government Bureau is currently finalizing a business analysis of their existing processes and systems as the first step in automating and eliminating hard copy documents from their processes.

Department of Commerce

- **Implemented software upgrades to key Housing Division applications.** All upgrades for the Housing Division software applications are implemented once they become available.
- **Planned for disaster recovery in Board of Investments.** A disaster recovery workstation has been purchased and configured to access BOI's files on the network and for Bloomberg trading in case of a disaster.
- **Enhanced teleconferencing capabilities.** DOC continues to use of Citrix GoToMeeting facilities to reduce travel and upgraded to a more functional and less expensive voice conferencing service and limited video conferencing.
- **Digitized and categorized received information, to include brochures and publications.** An analysis of the requirements was performed and determined that revising records management practices and using existing desktop tools and network files services more efficiently would meet the requirements in the Energy Promotion Development Division.
- **Migrated to Microsoft-based infrastructure.** DOC migrated from a Novell-based infrastructure to a Microsoft-based infrastructure.
- **Continued Web 2.0 technologies evaluation and use.** DOC instituted internal processes for the approving, managing, and monitoring the use of Web 2.0 technologies established and approved by SITSD.
- **Continued COOP & disaster recovery planning.** DOC completed objectives as planned which resulted in significant consolidation of resources and have moved some IT processing resources to more resilient and better protected facilities.
- **Enhanced teleworker support.** DOC eliminated all employee-based VPN access in favor of the teleworker site.

Department of Corrections

- **Implemented secure connectivity to Offender Management Information System using the State of Montana egovernment portal.**
- **Implemented the Employee Services Center that allows recording of supervisory notes and performance evaluations.**
- **Reduce the number of data errors in databases.** The Statistics and Data Quality Bureau have created and continue to create queries that search for incorrect or missing data in the systems.
- **Made significant enhancements to the Offender Management Information System and Youth Management System.** This included an improved user interface, event scheduling, risk and needs assessments, restitution payment information, and case management tools.
- **Evaluated current business practices and made recommendations where applicable to automate process.** Montana Correctional Enterprises now utilizes an MP3 system for music distribution and an update to the pharmacy system will allow infirmary staff to order medications online as well as have ready access to drug interaction information.
- **Implemented several new online services with Montana Interactive, including trust accounting deposits, victim registration, and an update to the Correctional Offender Network.**
- **Implemented system to manage mobile device security, including mobile phones and removable storage.**

Department of Environmental Quality

- **Instituted Business Process Management.** DEQ instituted a business process review of Public Water Supply, purchasing requisition, and enforcement areas.
- **Egovernment expanded.** DEQ implement more egovernment applications across programs, particularly related to permitting, enforcement, and licensing applications.
- **Continued development/maintenance of the enterprise database.** DEQ expanded their enterprise database (CEDARS) including revenue and accounts receivable, junk vehicles, Tank Helper, and EPA reporting.
- **Enhanced geospatial resources.** DEQ spatially enabled enterprise data including hazardous waste handler information.
- **Consolidated servers.** DEQ virtualized 28 devices, expanding the use of its 16 physical server devices and reducing costs.
- **Reduced energy consumption and lowered travel costs and time.** DEQ began using Citrix Go-To-Meeting for online meetings. IT conducted over 260 meetings last year reducing travel and saving time for staff and customers. Additionally, DEQ IT services included VPN, pcAnywhere, Citrix Secure Gateway, and Terminal Services Client.

Department of Fish, Wildlife and Parks

- **Provided the necessary training and technical support to FWP staff for increasing use of FWP's new video conferencing solution.** FWP network services staff upgraded all video conferencing site circuits in order to provide increased productivity through

more effective communications across the state and savings to travel expenses for the department.

- **Developed and implemented a pilot program providing for the integration and use of the DOJ SmartCop system for FWP Law Enforcement vehicle operations.** FWP successfully completed a small, limited pilot to verify the usability and applicability of the SmartCop program for FWP and based on the results decided to move forward with full participation in this project.
- **Developed and implemented a public web application that allows the public to search and listen to specific Commission meeting topics.** FWP instituted a new web-based application enabling authorized FWP staff to create commission meeting agendas, automatically post agendas to FWP's website, keep a history of commission agendas and meeting minutes, attach FWP commission meetings audio clips to agenda topics, and make those audio clips available to the public through FWP's website. This provided citizens with better accessibility to commission meeting topics of interest to them.
- **Provided a cost-effective, technological infrastructure that facilitated the consolidation of appropriate FWP technology services.** FWP continued its virtualization efforts to reduce costs and administrative overhead.
- **Transitioned the last of FWP's Oracle 6i forms/reports to Oracle 10g.** FWP's legacy Oracle 6i forms and reports were successfully converted to Oracle 10g.
- **Transitioned all applications from the SQL Server database platform over to the Oracle database platform.** FWP-hosted SQL Server databases were converted to Oracle as of December 2010.
- **Signed an agreement with DOC for the development of web content templates for FWP Parks' new website at stateparks.mt.gov.** The templates have been delivered and the new site is now in production.
- **Established "system champions" for each FWP business information application/system.** FWP adopted the agile software development methodology using the Scrum framework for application development, which has proven extremely effective toward realizing many benefits.
- **Implemented disaster recovery scenario exercises.** FWP continues to work on and refine its disaster recovery and business continuity plans. These efforts, coupled with significant fault tolerance in the FWP infrastructure, ensure that FWP systems continue to enjoy a 97%+ uptime factor.
- **Made full use of FWP's employee award programs and identified other creative options to enhance employee morale and retention efforts.** SMART awards are used whenever possible as a means to thank employees for outstanding work efforts.
- **Enhanced and improved the flexibility of FWP recruitment processes for technology positions.** FWP Application Development Unit's Computer Software Engineer recruitment postings were revised to "market" the agency and the position.
- **Codified internal standard operating procedures for systems management.** FWP's web team consistently practices code reviews. The FWP Application Development staff is in the process of adopting periodic and on-going code reviews, database design reviews, and other procedural reviews to improve and further secure systems management.

Department of Justice

- **Aligned IT governance to meet business needs.** DOJ created governance bodies, charters, processes, and procedures for agency IT. Additionally, the Attorney General established the MIJIS to advise the AG on ways to improve the information sharing of public safety information using standardized and cost-effective methods.
- **Built and leveraged partnerships.** DOJ established a number of partnerships through contracts and agreements to assist in the delivery and support of IT systems and services.
- **Standardized, consolidated, and integrated systems.** DOJ standardized on types of workstation devices (desktop, laptop, etc.), servers, storage, and other IT items in order to minimize different configurations that must be maintained.
- **Maintained current systems.** Current DOJ systems have been identified and are being evaluated individually to determine service levels and life cycle support and planning.
- **Assured trusted and resilient systems and information.** DOJ formed a security working group comprised of all DOJ division representatives. This group prioritized systems, doing risk assessments on the top systems.
- **Institutionalized IT security.** DOJ worked to increase security awareness. As a part of this, the agency developed and documented a project management process that identifies security as a key component of projects and is considered early in the project in order to engineer security into the project. Additionally, it implemented a local government security outreach program where staff visits and communicates with local government officials to engage them in security awareness, requirements, and solutions.
- **Attracted and retained a skilled IT workforce.** DOJ significantly changed the recruitment process, allowing for greater exchange between the department and recruits. This allows each party to make better decisions in order to achieve long-term employment.
- **Increased collaboration (internal and external).** DOJ significantly enhanced its intranet to support greater collaboration including a DOJ-wide page. Additionally, it implemented a project management site to allow great project collaboration between divisions external to DOJ. The public webpage was redesigned using WordPress.

Department of Labor and Industry

- **Prepared and implemented staff development plans and provided access to training.** DLI provided access to technical training on-line including purchasing manuals and allow the use of video streaming to watch technical presentations on line.
- **Provided IT solutions.** DLI completed the consolidation of Business and Licensing Standards databases into a single system that is accessed via an internet portal. Additionally, it replaced older technology and automated business functions such as Independent Contractor registration, Claims Assistance, Workers' Compensation Mediation, and Assessment systems.
- **Provided value to customers.** DLI provided web-enabled systems so customers can access programs outside of regular working hours. This reduces the knowledge that the technical staff must maintain by eliminating the older software and environment.
- **Completed strategic and tactical programs.** DLI implemented the SANS Securing the Human Training and system specific training by division for 3 of 5 divisions.

Department of Livestock

- **Replaced Brands Mainframe system with a relational database management system.** The new system went live in January 2011.
- **Upgraded technologies for brand rerecord.**
- **Replaced Animal Health permits and disease tracking system.** This was accomplished by start of January 2011.
- **Eliminated duplication and improved functionality.** All but one of the legacy systems has been replaced.
- **Improved services and functionality provided via the internet.** Animal health permits are now available on the internet. The master brand book is available online. Additionally, market permits and county brand books may be purchased online.
- **Analyzed hardware and software.** LIV procured a new file server and application server in addition to installing new applications.
- **Identified data agency sharing.** As legacy systems were upgraded, potential data sharing areas were identified.
- **Incorporated agency data sharing.** LIV granted access to the game-farm module of USAHerds to FWP.
- **Identified internet services, performed cost analysis, analyzed hardware and software, developed plans, coordinated with SITSD and vendor, and implemented internet service.**
- **Planned for disaster recovery.**
- **Continued debugging and enhancing the Laboratory Information Management System.**

Department of Military Affairs

- **Effectively managed emergencies.** DMA gathered information from multiple entities and held training and informational classes.

Department of Natural Resources & Conservation

- **Migrated agency servers from Novell to Windows.** DNRC servers have been successfully migrated to Windows and use of Novell servers and services eliminated.
- **Expanded video conferencing.** DNRC now utilizes video conferencing systems in Helena, Missoula, Bozeman, Kalispell, Billings, Miles City, Lewistown, Havre, Glasgow, Libby, the Swan, Anaconda, and Dillon. This greatly reduced the need for travel.
- **Developed a simple GIS program for use in division business operations.** The DNRC basemap successfully launched in fall 2011, providing staff with self-serve access to basic spatial data and mapping capabilities. The application allows users to perform tasks such as querying data, viewing basemaps, measuring features, and creating simple layouts.
- **Implemented statewide fleet management system.** As of 2010, all DNRC vehicles are maintained in the new "Agile" system.
- **Continued to establish a coordinated GIS infrastructure.** DNRC established five spatially enabled databases that are hosted in the state data center. Currently, 79 critical

datasets are stored and maintained within these databases and 35 of these datasets have been published as web services.

- **Updated Dam Safety, National Dam Inventory, and permitting database.** DNRC completed database update and the system is successfully in use by staff. The new database is an important tool for keeping track of regulatory requirements and deadlines, and has already proved to be valuable in assisting staff with compliance monitoring.
- **Explored use of social media for public outreach.** DNRC established a Twitter account as a pilot project to evaluate Twitter's effectiveness for disseminating fire information and updates. Additionally, Montana Rangeland Resource program launched a pilot Facebook page in January 2012.
- **Created centralized GIS data sets for DNRC and other agencies.** Increased use of web services allowed publishing of the agency's authoritative datasets in a widely accessible format.
- **Continued document scanning for water rights.** Of the existing 394,000 water right files, approximately 73% have been converted to scanned images.
- **Evaluate needs and update the water rights application and database.** Enhancements to the Oracle water rights database continue to improve flexibility in information gathering, report generation, and customer access.
- **Developed a right-of-way database.** Forest Management Bureau technical services staff initiated creation of standardized database pilot, resulting in the addition of three new right-of-way tables to TLMS.

Department of Public Health and Human Services

- **Designed, developed, and implemented eligibility systems and enterprise architecture project (CHIMES-SNAP, CHIMES-TANF, CHIMES-EA).** During the first month of operations the system issued over $15,000,000 in SNAP benefits and over $1,000,000 in TANF benefits.
- **Initiated a project for the design, development, and implementation of a new Medicaid Management Information System (MMIS).** This is a large, multi-year project.
- **Implemented a Document Management System for the scanning, electronic storage, and retrieval of case file documents in all its offices of public assistance.** The Document Management System currently implemented for Public Assistance Programs allows scanning and electronic storage of all case file information.
- **Implemented a public web portal that allows citizens to apply for public assistance online.** An average of 1,050 completed applications are processed per month.
- **Design department systems to allow for GIS functionality.** DPHHS incorporated GIS requirements into overall business requirements.
- **Installed, maintained, and enhanced servers, databases, networks, and personal computers.** DPHHS transitioned department data center assets to the SMDC and has 100% server virtualization. The agency established a normalized 5-year replacement plan for well managed and cost efficient replacement of 3100 PCs and laptops agency-wide.
- **Implemented first agency enterprise architecture platform, which includes an enterprise service bus and several web service layers with the implementation of the CHIMES-EA systems.**

- **Replaced legacy systems that have reached end-of-life.** DPHHS systems that fall into this category include CHIMES, MMIS, and MACWIS.
- **Expanded egovernment Services.** Phase 1 of Montana Connections, a public website for online application for public assistance, was implemented for PDF-based electronic submission to Offices of Public Assistance. Phase 2 of Montana Connections will integrate the online application directly into CHIMES-EA, thus eliminating the data entry step by the worker.
- **Implemented new systems within service oriented architecture.** With the production implementation of the CHIMES-EA systems in October 2012, DPHHS will establish its first enterprise architecture platform.
- **Implemented an enterprise service bus.** With the production implementation of the CHIMES-EA systems in October 2012, DPHHS will establish its first enterprise architecture platform.
- **Expanded use of collaboration tools (WebEx, SharePoint) department-wide in support of programs and projects.** DPHHS continues to implement and expand use of SharePoint throughout the Department to serve both operational and project based needs for the enterprise.
- **Developed a continuity of operations plan.** DPHHS is participating in the COOP project managed by the Department of Administration.
- **Built system redundancy.** DPHHS plans to move SAN and other redundancy platforms to the Miles City Data Center.
- **Hired, trained, and retained a skilled IT workforce at appropriate levels.** DPHHS successfully hired several key technology staff. IT works with Human Resources to classify positions and create career ladders. The agency invested significantly in training its programming and network staff in the latest IT tools, methods, and practices.
- **Ensured security of DPHHS data.** DPHHS is implementing a NIST-based security program, which includes on-going risk assessment of existing systems. NIST security standards are included in requirements for all system development and implementation projects. Additionally, the agency is creating a security program that includes policies, processes, and technology to ensure protected health information (PHI) and personally identifiable information (PII) is protected on the network and within systems.
- **Ensured integrity of DPHHS data.** DPHHS continues to implement data integrity controls and assurance through the use of a modern application and database technologies and practices.

Department of Public Service Regulation

- **Upgraded and enhanced Transportation, Legal and Financial Information Tracking System.** PSC used a consulting firm to rewrite the transportation system.

Department of Revenue

- **Implemented a consolidated application & system support model.**
- **Upgraded GenTax version 6 to version 8.**
- **Enhanced Security.** DOR contracted with an independent firm to provide a security audit and an associated risk analysis of the department's physical space, document

storage, and information systems. The audit identified additional, cost-effective safeguards to reduce, eliminate, or recover from identified threats to confidential information. DOR and SITSD signed a Memorandum of Understanding to improve the security and administration of the DOR mid-tier environment.

- **Implemented Symantec Endpoint Encryption (SEE).** This provides the tool needed for creating, distributing, enforcing, and monitoring security policies on endpoint devices, without forcing users to make security decisions or adjust settings.
- **Developed and implemented a department-wide business continuity/resumption plan.** DOR is implementing MOUs for returns and payment processing in case of disaster.
- **Continued support of the Governor's 20 X 10 initiative.** DOR downsized the number of desktop printers and adjusted settings on computers to save energy. Additionally, the agency implemented energy efficient power supplies video conferencing capability, server virtualization, and remote management of desktops, and hardware and software asset management.
- **Implemented electronic collaboration technologies.** County office bandwidth was upgraded. Video conferencing units were distributed statewide.
- **Improved efficiency, service, and taxpayer confidentiality through imaging technology.** Over 100 different form pages are scanned, and data is either captured or the image is stored.
- **Improved customer service through a redesigned DOR website.**
- **Established a workforce development plan.** DOR rolled out a review of job profiles, implementation of performance appraisal system, and added performance measures.

Department of Transportation

- **Updated the "Montana Regional Architecture" to ensure accuracy of the documentation of MDT's Intelligent Transportation System.** Montana Regional Architecture documentation has been fully updated.
- **Provided end-user hardware and software support, maintenance, replacement, and management services on an on-going basis.** MDT engaged in two significant hardware replacements, repaired end-user hardware as necessary, and began to migrate to the Windows 7 operating system.
- **Provided infrastructure hardware and software support, maintenance, replacement, and management services on an on-going basis.** MDT fully-migrated server and related infrastructure to SMDC. IT also engaged in several software and hardware replacement projects.
- **Provided applications software support, maintenance, replacement, and management services on an on-going basis.** MDT routinely engaged in maintaining and supporting existing application assets deployed throughout the agency.
- **Provided direction for improvements or alterations to the existing application portfolio.** MDT worked with business entities from throughout the agency to update and improve a variety of existing applications.
- **Ensured that an agency focus on priority is provided for large-scale development efforts that require extensive IT resources.** MDT undertook a portfolio management

project to address this issue that includes an investment selection decision-making process.

- **Ensured that appropriate technologies are applied to new or extensively changed systems.** All application development and improvement efforts ensured appropriate technologies were applied.
- **Provided support for the Applications Bureau technology direction.** MDT engaged in substantial research to establish the technology future for the agency.
- **Provide computer-training opportunities for MDT personnel.** MDT provided computer-training opportunities to all personnel.
- **Developed and maintained an information system strategic plan for the agency.** MDT engaged in a significant initiative to update and implement their strategic planning efforts; the result was a substantially improved methodology and strategic plan.
- **Developed and maintain a tactical plan.** MDT engaged in a significant initiative to update and implement their strategic planning efforts. The result was a substantially improved methodology and tactical plan.
- **Continually assessed and improved information system division processes.** MDT engaged in several process improvement initiatives to improve our internal processes.
- **Employed project/program management best practices to ensure timely and cost effective delivery.** MDT actively engaged in the assessment of our existing project management processes, and actively developing and documenting improvements to those processes.

Governor's Office

- **Streamlined budget change document processing.** GOV created an in-house application for fiscal note preparation and analysis.
- **Deployed Montana Means Business web portal.** The portal is a fully functional, customized geospatial web application for the search, discovery, and delivery of relevant information (marketing, demographic, property) necessary to improve Montana-centric business decisions for multiple end users.
- **Transferred Statewide Business Expansion and Retention system to DOC and DLI.** The system allows the state, all counties, and local economic development organizations to conduct expansion and retention surveys of all business sectors and immediately determine red-flag issues that impede economic development in a specific locale.

Montana Arts Council

- **Provided basic services & support.** The agency must meet budget requirements while attempting to keep up with ever-evolving technologies with ever increasing price tags.
- **Successfully implemented an online grants application system.** Education about new aspects of the system, updates & revision of our guidelines, applications, evaluations, and reports are ongoing.

Montana Historical Society

- **Proactively managed hardware and software assets.** MHS provided stable and secure data for partners and patrons by having reliable access to high quality content and services provided through stable information systems.
- **Enhanced IT security.** MHS implemented an agency-wide security program through new employee orientation and continued distribution of literature both electronic and printed form as it relates to IT security policies and procedures.
- **Enhance access to Research Center and Museum catalogs.** From January 2010 through December 2011, the Research Center added 5,584 records to the Montana Shared Catalog. 23 inventories for archival and photograph collections were submitted to the Northwest Digital Archives, providing increased online access to archival materials. MHS made selected parts of collections available online, including adding 11,107 images in the Montana Memory Project and submitted 45,000 images of newspaper pages to the Library of Congress for inclusion in the Chronicling America portal
- **Provide electronic access to Montana Magazine of Western History and Press Books.** MHS Press books are available for purchase through the museum store website. Montana Magazine of Western History is available on JSTOR an on-line service.

Montana Public Employee Retirement Administration

- **Implemented an imaging system and basic workflow for critical MPERA forms and documents.** MPERA successfully implemented Laserfiche electronic content management system. All day-forward mail and documents are scanned directly into the system for electronic distribution to the appropriate MPERA staff. MPERA is 12% complete with back file scanning of approximately 500,000 images of active and inactive members' paper files.
- **Implemented an information security program.** MPERA designated an Information Security Officer. The staff has attended training and worked with DOA to understand the requirements of a good information security program.
- **Continued to support and maintain existing IT infrastructure.** MPERA completed 77 enhancement requests on the legacy pension administration system. It enhanced the retirement benefit estimation feature of MPERA's website and implemented a public facing web based service purchase calculator. Additionally, it created an in-house benefit calculator for use by MPERA's member services staff.

Montana School for the Deaf and Blind

- **Maintained connectivity on the ITV circuit and on-going services to provide distant learning activities for sensory-impaired students along with professional development opportunities for MSDB staff, Local Educational Agencies, and other agencies providing services to sensory-impaired students.** MSDB established a dedicated room for the system which is used for meetings, virtual fieldtrips, training of staff, and began to offer distance-learning classes to students.
- **Maintained equipment functionality, rotation schedule, telecommunication system, and software upgrades as well as keep the MSDB Technology Lending Library up-**

to-date. MSDB purchased 7 new desktops and one new laptop this summer to help update the oldest equipment.

- **Maintained a dynamic website with links to and resources about sensory impaired children and working with them.** MSDB completed the redesign of the website and have worked hard to keep it up to date and useful.

Montana State Fund

- **Planed IT resources for organizational efficiency and cost-effectiveness.** Business plan and executive approved projects to date have been delivered on schedule, using planned MSF internal resources and external resources.
- **Improved insurance service quality.** Business plan and executive approved projects have been delivered on schedule and attained the business approved pre-defined quality goals. Operational system and support service goals are consistently met or exceeded. Application updates occur every two months and include planned system changes.
- **Developed IT employee insurance business and technical skills.** 114 training events occurred over the past two years with both technical and business focus. Knowledge transfer assignments for technology skill growth regularly occur between IT employees.
- **Ensured MSF infrastructure supports existing operational requirements and is positioned for flexibility.** Internal infrastructure and system upgrade projects have been delivered on schedule and within approved budget.

Montana State Library

- **Used the agency strategic planning process to identify priorities for new and/or expanded information systems.**
- **Provided online interfaces that enable partners to contribute feedback regarding MSL projects and services as well as content to MSL collections.** MSL has several programs that use Facebook, Twitter, and blog software to get information about their services out to user communities and to foster communication with those communities.
- **Implemented project management as a means to proactively manage information systems and projects.** A project management approach was taken for both the updated GIS portal rollout as well as for MSL participation as a partner in the GeoMAPP project.
- **Proactively managed hardware and software assets.** MSL staff maintains software license compliance across all MSL platforms.
- **Encouraged staff from all library programs to effectively collaborate across programs in order to use all library information system resources to meet the goals of MSL.** Projects exceeded original expectations. “Virtual kiosks” or patron “companions” replaced a kiosk concept. The use of GIS for library planning has been a great success resulting in the development of an entire gallery of library maps.
- **Collaborated with partners on projects and services that increase citizen access to public information and library content.** MSL continues to work on increasing the amount of data, services, and other content discoverable through GIS Portal. Additionally, it continues to digitize legacy print collection (35,000 volumes) and will partner with other state agencies to prioritize publications for digitization. It implemented

a single authentication solution to facilitate access to local and statewide commercial and bibliographic databases for both MSL patrons and library patrons statewide.

- **Developed a long-term access solution for unique digital content held by MSL and other Montana libraries.** MSL subscribed to the OCLC Digital Archive to provide a statewide solution for long-term access of digital masters for libraries around the state.

Montana State Lottery

- **Increased the number of retailers.** Overall, LOT has had a 20% increase of retailers from FY 2010 to the present.
- **Provided LOT employees with state of the art personal computers and fast and efficient connections to the state network and to the Lottery Operating System.** LOT replaces approximately 20% of the administrative PCs every year and the administrative server once every 5 years.

Office of the Commissioner of Higher Education

- **Improved data warehouse access.** Access response times to the data warehouse servers is quicker, resulting in a more efficient ability to obtain Montana University System data, run reports, and provide remote server maintenance.
- **Used desktop video conferencing.** Increased bandwidth allows utilization of video conferencing for interviews of out-of-state applicants and conducted on-line meetings and webinars. Additionally, the system allows OCHE staff to view live streaming feed of Board of Regents meetings.
- **Enhanced SharePoint.** Increased bandwidth allows for better efficiencies in information sharing and increased ability to manage statewide projects, programs, and staff.

Office of Public Instruction

- **Created enterprise-wide data architecture to map the future for Montana's educational data systems.**
- **Created a data governance structure.** OPI established an internal body that oversees changes, quality control, and interpretation of the data held in the agency data stores.
- **Implemented business intelligence tools.**
- **Upgraded database servers to SQL 2008.**
- **Implement business process management.** OPI ensures IT projects are being driven by business needs by utilizing business process reengineering and continuous improvement.
- **Added the statewide student ID to all high school transcripts.**
- **Increased use of video streaming.** OPI successfully deployed Adobe Connect for online meetings and professional development for teachers.
- **Implemented best practices.** OPI uses project management methodologies, including independent verification and validation, continuous strategic planning and system development life cycle, testing, and quality assurance.

Office of the State Public Defender

- **Implemented expanded video and web-based conferencing.** OPD added 3 additional video sites in Billings, Glendive, and Miles City.
- **Improve records management capabilities of OPD.** OPD developed file retention guidelines that apply to both paper and electronic documents. Implementation of these guidelines as it relates to electronic documents is delayed due to technical limitations and a lack of resources. Additionally, OPD deployed several desktop scanners to staff to more efficiently store documents electronically. The case management system is configured to allow staff to store electronic documents.
- **Implemented Enhanced Security.** OPD began working and continue to work with the CIO Programs Office on developing an Information Security Program.
- **Enhanced JustWare Case Management Reporting to support and improve operations.** OPD data integrity and accuracy improved and many management reports have been developed to improve operations.

Secretary of State's Office

- **Replaced legacy systems.** SOS replaced an aging and outdated legacy mainframe application, and several smaller applications and databases that support SOS lines of business and customer service.
- **Expanded technical support staff.** A 5-year IT staffing plan was developed and approved.

State Auditor's Office (Commissioner of Securities and Insurance)

- **Installed access to the imaged documents at the desktop for users.** CSI completed a current catalog of scanned documents.
- **Continued to evaluate the ramifications, advantages, and disadvantages for integrating technical initiatives in CSI.** Through assessment of CSI IT operations and how the CSI collects and stores data, it was determined that integration with National Association of Insurance Commissioners through their State Based Systems application system would be beneficial.
- **Continued privacy/security training for our employees in their role as employees in a regulatory agency.** CSI developed internal on-line training resources using federal Department of Defense on-line training modules to educate and train new and existing employees on how to protect personally identifiable information (PII). They agency is in process of performing a thorough review of all PII and removing it from CSI business and technical processes. All CSI employees have completed security training.
- **Developed the full potential of staff by promoting training and cross training on the various parts/capabilities of the CSI production database.** CSI utilizes classes taught by internal staff for basic computer literacy and software products.
- **Promoted positive communication, cooperation, and mutual respect within and among all work units.** CSI continues to provide tools for better communication and cooperation. CSI appointed an internal Information Technology Management Committee to meet quarterly to review technical projects, policies, and expenditures in order to streamline CSI IT business operations.

- **Protect individual privacy and the privacy of information contained within the CSI IT systems.** CSI began developing and implementing security policies, training staff and users, performing network security checks, backing up and performing test restores on all data.
- **Evaluated the CSI equipment needs (servers, peripherals, and desktops) and replace older hardware to meet business access requirements.** CSI completed extensive hardware upgrades including a reengineered technical server environment and movement from physical to virtual environment. This gives the ability to deliver and manage new applications and systems more efficiently. The implementation time for a new systems and applications has decreased significantly due to the functionality within this environment, allowing CSI IT to better meet the needs of regulatory staff.
- **Maintained software to keep operating systems and desktop applications up to date.** CSI implemented desktop management software to be able to collectively manage desktop configurations, specialized software and security updates, and all end-point devices on the network.
- **Maximized the CSI IT resources.** CSI propagated accurate and timely method of accounting for hardware and software licenses at the desktop level. Internal IT audit procedures help ensure software licensing compliance
- **Continued the scanning process and development of the infrastructure that will make the scanned images available to CSI staff.** CSI scanned a majority of the existing paper files related to the bureaus within the agency and those bureaus continue to scan new documents as part of their daily processes.
- **Reduce hard copy forms submission and improve capability for regulatory activities.** With few exceptions, all surplus lines submissions now come to the CSI from in-house, on-line system. This eliminated the cost of on-line submissions for surplus lines producers as of January 2012.

Teachers Retirement System

- **Cross-trained and documented daily operations.** Multiple staff are trained and ready to accomplish daily activities for members and retirees, including cross training of active member staff, retiree staff, and IT staff.
- **Wrote, reviewed, and sought board approval for IT policies.** Agency IT policies are in place. Staff training on policies and procedures is ongoing
- **Maintain the existing pension application software with minimal changes.** TRS kept changes to a minimum. The benefit is fewer bugs and reduced programming costs.
- **Review and renew current maintenance agreements for software support for Pension+, OpenVMS, HP Blade Servers, and Powerhouse.** TRS reviews and renews maintenance agreements on an annual basis to provide ongoing support for critical systems and hardware.
- **Continue with COOP and DR training, requirements definition, and planning.** Staff is trained on COOP and Disaster Recovery.
- **Conducted a buy vs. build analysis.** TRS staff participated in the MPERA RFP to understand requirements for buying or building new system regarding the possibility of migrating the Pension+ database to Oracle.

MAJOR ACTIONS REGARDING STATE OF MONTANA INFORMATION TECHNOLOGY

Over the last two years, two major governance actions impacted IT within the State of Montana. The first was an audit of MITA, covering all aspects of the law's effectiveness. The second was a select interim committee tasked with looking at efficiencies in government. As a part of their work, the committee examined how IT could be an enabler of governmental productiveness and savings.

Montana Information Technology Audit for 2012

In 2012, the Legislative Audit Committee audited IT governance inside the executive branch (Audit Report #11DP-13). The specific purpose of the audit was to evaluate the effectiveness of IT governance in light of the rapidly changing and extremely challenging technological landscape. The conclusion of audit was that MITA has improved IT governance, has enhanced collaboration and communication, and provides a framework for IT planning. As the Legislative Auditor, Tori Hunthausen, stated: "Overall, MITA provides an effective governance framework for Montana. However, we identified several areas where procedures could be changed to improve effectiveness."

The audit came with three recommendations:

- *Recommendation #1 - We recommend the Department of Administration modify its agency IT plan template and Review Process to ensure completeness and continuity.*
- *Recommendation #2 - We recommend the Department of Administration expand project management policy guidance and reporting procedures for state agencies.*
- *Recommendation #3 - We recommend the Department of Administration clearly delineate information technology policies and formalize a systematic policy development process.*

DOA concurred with all recommendations and constructed a corrective action plan to implement changes.

Overall, the audit of MITA points toward two divergent conclusions. First, Montana's enabling information technology legislation provides a solid base for governance. The core concepts that have been developed over 11 years of MITA meet the needs of the state. Conversely, Montana's IT governance has room for improvement. In the areas of agency planning, project management, and policy formation, the state still needs to develop capacity.

Select Committee on Efficiency in Government

The 2011 Montana legislature provided for a Select Committee on Efficiency in Government, known colloquially as "the 642 Committee" from its enabling legislation – House Bill 642. This committee was tasked with seeking out innovative methods to save money for state government.

As a part of their work, committee members examined how technology could be used to create areas of efficiency and effectiveness. On November 14, 2012, the committee issued its final report, which highlighted a number of recommendations on how information technology can be used to enhance government activities while increasing productivity. The committee specifically stated that:

- *The Montana CIO should work with the Information Technology Managers Council, the Computer Systems Planning Council, and Montana Interactive to create a plan for future mobile computing needs.*
- *Montana should examine the deployment of a coordinated, hybrid, cloud-hosting environment encompassing agency IT resources, vendor-provided public cloud, and the State of Montana's cloud. DOA should develop policies and processes that allow for monitoring and management of overall departmental, state enterprise, and public cloud usage.*
- *The Legislature should enact legislation to study the management of electronic records. This study should include the creation of a process for collecting, preserving, and managing public electronic records while also maintaining security and cost controls.* (This was initiated by House Joint Resolution 2 sponsored by Representative Galen Hollenbaugh and approved by the 63rd Legislature. HJ2 sets up an interim committee to study issues related to electronic records in government.)
- *The Legislative Fiscal Division should provide a cost comparison of agency in-house data center service to SMDC costs. The resulting comparison of costs could be used in the appropriations and budgeting processes to ensure that agencies are appropriately funded to migrate to the SMDC.*
- *The Legislature should enact legislation to clarify the authority of local government to store electronic documents off-site.* (This was accomplished by Senate Bill 5 sponsored by Senator Edward Buttrey during the 63rd Legislature. The governor signed the clarification into law on February 26, 2013.)

The actions of the committee represent a change in how Montana looks at information technology. Rather than thinking about information technology as a cost, the committee saw ways to use to technology to increase government efficiencies. Committee members saw the complexity of public sector IT, but they also found that IT could offer advantages to the state when investment is made in the correct areas. This view is perhaps best stated in Senate Bill 312, introduced by the committee chair, Senator Jon Sonju and signed into law by the governor, "Information technology is essential and vital to the people of the state of Montana, and the services, systems, and infrastructure are therefore considered to be an asset of the state".[2]

[2] Senate Bill 312, 63rd MT Legislature. This was signed into law by the Governor on April 5, 2013

STATUS OF THE INFORMATION TECHNOLOGY INFRASTRUCTURE

The State of Montana operates a federated information technology system. SITSD provides the central IT with large-scale, multi-agency facilities. These include the state data centers, the state network, and the state identity management system. Agencies are responsible for specific equipment that relates to their organizational functions including specific software applications and desktop support for their employees. This system allows for cost-savings to the state and adaptability to meet citizen needs.

This report contains select information on statewide systems only. Due to the sensitive nature of this information, agency data is not published in this report. Requests for particular agency information can be made to the State information Technology Services Division (itpoicy@mt.gov) or to the agency directly.

Network

The state's network and internet bandwidth capacity stand as one of the great efficiency enablers in government. The available network capacity is the foundation for a multitude of technologies and services that directly relate to increasing the efficiency and effectiveness of state government. Without the necessary network capacity, programs will not be able to provide the required services and the citizens will be negatively impacted.

In an effort to improve effectiveness and reduce costs, the state has pursued a two-part network strategy. The first part involves the core of the network which runs between Missoula and Miles City through Helena, Bozeman, and Billings. Along this route, the state has found cheaper and better transport by purchasing off of a University System contract. This change increases the core transport capacity from 2.5 GB to 10 GB.

The second part involves using the savings on the core network to push better quality to the periphery of the network. Better network quality allows for reduced travel costs as employees can now communicate with colleges via video conferencing and receive web-based training. To accomplish this, the state has continued to merge multiple stand-alone networks into a single "converged" network. This newly converged network is based on Multi-Protocol Label Switching (MPLS) technologies. This network is designed to ensure a quality of service regardless of the physical location. With this technology in place, the state has an ability to transport a wide variety of data on a single network circuit to remote sites, providing increased service at reduced costs. For example, before converging the network, the state ran an additional 50 network circuits for video conferencing alone. After converging, 209 sites were upgraded and the redundant circuits disconnected.

A converged network also allows for "dynamic failover" between network locations, ensuring a highly available and reliable network. As an example, Montana has two core network locations, Helena and Billings, where the state network interfaces with the internet. With a converged

network, a failure at one location has little impact as traffic is rerouted to the other location. This allows for work to continue in spite of a technical failure.

Wireless networks still present a challenge for the state. Several years ago, the state recognized the need for flexibility in its wireless environment. State employees and contractors can access the secured network at most state buildings with the proper devices. Others can access the unsecured or "guest" network from MPLS sites across the state. However, security concerns have hampered further growth of wireless networking. The state is working on the best strategy to proceed that is cost-effective, efficient, and secure.

Data Centers

Data centers are the beating heart of modern IT. Inside of their walls, data centers house the servers which power applications, disks which preserve information, and switches that control the networks. Because of specific regulations, governments require high-performance data centers. Without these buildings, modern governmental operations would grind to a halt.

Over the past two years, the state significantly upgraded its data center operations. The state now owns two data centers and leases a third. All were built to provide a robust central computer presence even in the event of catastrophic failures. The old system, keeping a computer presence in the basement of a building, hampered the state's capabilities and did not provide reliability. The state now has its primary data center in Helena – the State of Montana Data Center (SMDC) and a disaster recovery site in Miles City – the Miles City Data Center (MCDC).

The SMDC was opened for operations in August of 2010. The core purpose of this data center is to house computer services for the state. SMDC is a secure, 15,024 square foot facility that utilizes state of the industry technology. It features the KyotoCooling cooling system designed to save energy by using cool, outside air. Additionally, the SMDC is supported with an Uninterruptible Power Supply (UPS) system and two 1000 kW generators capable of providing power for extended periods of time. As part of the data center effort, a cross-agency collaborative team has assisted agencies with virtualization, server consolidation, and savings through equipment replacement. The SMDC hosts 14 state agencies and two outside organizations – Montana Interactive and the State of Oregon. Agencies hosted at the SMDC include:

- Board of Crime Control
- Department of Administration
- Department of Commerce
- Department of Corrections
- Department of Environmental Quality
- Department of Fish Wildlife and Parks
- Department of Public Health and Human Services
- Department of Livestock
- Department of Revenue

- Department of Transportation
- Governor's Office
- Montana State Library
- Teachers' Retirement System

The Miles City Data Center (MCDC) went operational in April 2012 with the installation of a backup mainframe computer. After establishing a network link, SITSD moved the main backup disk storage system from Helena to MCDC in December 2012. With the relocation, the primary disaster recovery site for the state is now the MCDC, replacing an out-of-state third party contractor. DPHHS moved their main disk-based backup system from Helena to the MCDC in December 2012 as well.

INVENTORY OF STATEWIDE SERVICES, EQUIPMENT, AND SOFTWARE

As noted previously in this report, the State of Montana operates a federated information technology system. As such, SITSD provides a set of shared services available to any part of the state government, including counties and municipalities. In order to meet specific needs, agencies procure or develop their own software and services. This system allows for cost-savings to the state and adaptability to meet citizen needs.

Only services and software available on a statewide level are listed. Due to the sensitive nature of this information, agency data is not published in this report. Requests for particular agency information can be made to the State information Technology Services Division (itpoicy@mt.gov) or to the agency directly.

Statewide Services

Electronic Collaboration and Communication

- Imaging and Document Management
- Real Time Communication
- Document Management and Collaboration
- Video Conferencing
- Web Content Management Software
- Electronic Mail
- Data Analysis
- Statistical Analysis Software
- Computing Systems Monitoring
- Internet-streamed broadcasting
- File Transfer Service
- PDF Converter

Telephone

- Public Telephone Book Coordination
- State Government Telephone Directory
- State Telephone Operators
- Audio Conference Calling
- Automatic Call Distribution
- Desktop Telephones (Analog and Digital)
- Voice Mail

Connectivity

- Network Connectivity including internet access
- Virtual Private Network
- Firewall Administration

Systems Hosting

- Dedicated Hosting
- Co-Located Hosting

Subject Matter Expertise

- Procurement
- Application Development
- Database Management
- Desktop Support

Public Safety Communication

- 911 Coordination
- Land-Mobile Radio

Enterprise Services

- Identity Management
- Information System Security Risk Management
- State of Montana IT Governance
- Statewide IT Councils and Conference Support
- Statewide IT Training
- State of Montana Intranet
- Statewide IT Procurement and IT Contract Management
- Website Hosting (mt.gov and individual agencies)
- Statewide Continuity of Government Program

Statewide Software

- Microsoft Enterprise Software
- Microsoft Select Plus
- Adobe
- Oracle

MAJOR INFORMATION TECHNOLOGY PROJECTS FOR FY 2014-2015

This list of initiatives was drawn from the Agency IT Plans of October 31, 2012. Only those initiatives that were both listed in the Agency IT Plans and which SITSD received supplementary information are listed. Some agencies listed a major IT project in the plan but did not submit supplementary documentation. Such initiatives were not included. Additionally, the Legislative and Judicial Branches, as well as the National Guard are not included in this report due to their standing exemptions from MITA.

Board of Crime Control

No initiatives listed for Fiscal Years 2014-2015

Board of Public Education

No initiatives listed for Fiscal Years 2014-2015

Commissioner of Political Practices

Initiative Name	Initiative Description
Campaign Reporting Service / Database Rewrite	Based on SITSD recommendation a single vendor, Stoneriver, will rewrite the current online systems and Oracle database, and provide online services and a functional database. Anticipated benefits include the elimination of a potential costly system failure (to agency and taxpayer). The project is a one-time only appropriation and would be general funded, completed in 6 months, and ready to use for the 2014 election cycle.

Department of Agriculture

Initiative Name	Initiative Description
Replace Agriculture Science Division Licensing, Registration and Certification system	The department will implement a commercial off the shelf, web-based software solution for the Agriculture Science Division licensing, registration, inspection, and enforcement system. This project is necessary due to the agricultural community's increasing requests and expectations of department services to be available through the internet.

Department of Administration

Initiative Name	Initiative Description
Enterprise Identity Management (IdM)	The funding request is for the upfront costs of purchasing IdM software product (commercial off the shelf), planning with contracted consulting funding, and implementation. IdM provides a single password for users, comprehensive security controls for systems, robust auditing capabilities, and the ability to integrate various agency systems together to exchange and manage data.
Public Safety Communications System	The requested funding includes the following: $5 million for the build-out of key public safety radio sites throughout the state and $10 million for radio interoperability equipment.
Public Safety Communications System Maintenance and Operations	The requested funding includes the following: $1.5 million for replacement equipment to support the maintenance of the system and $1.5 million for the leased use of private telecommunications equipment and infrastructure.
Computerized Maintenance Management System (CMMS)	This project's purpose is to purchase a CMMS to track, schedule, and organize facility maintenance through a web-based work order management system. Benefits of a CMMS include maintained or increased customer satisfaction levels, recording and tracking work order requests, and capturing costs by customer, building, or department. It is needed now because the current system is manual, making it difficult to manage and plan deferred maintenance used for over 40 buildings.

Department of Commerce

No initiatives listed for Fiscal Years 2014-2015

Department of Corrections

Initiative Name	Initiative Description
MSP Inmate education software	The purpose of this project is to renew the inmate education software tool. The software tool would determine the educational needs of inmates in order to reach a 9^{th} grade education level, increasing the number of GEDs, increasing staff availability, and help inmates obtain skills necessary to successfully reenter communities. This project is necessary now because the tool has to be relicensed in order for the education department to continue using it.
MSP MDIU Door control system	This project is to upgrade the existing MDIU door control system from Windows 98 computers to Windows 7 computers and also upgrade the system software. This is necessary because the company who provides maintenance will no longer support Windows 98 computers.

Initiative Name	Initiative Description
MSP Employee training and time entry computers	This funding will be used to continue to provide computer access for Correctional Officers and other staff at Montana State Prison.
MSP Water Telemetry System	This project is to replace the existing legacy system. It consists of a computer, software, and a main control panel that is standalone and not connected to the state of Montana network. The system needs to be replaced to operate on modern hardware.
RevQ licenses	This project is to fund the cost of twelve annual RevQ licenses and technical support. These licenses are required in order to maintain continued use of the Revenue Result-RevQ collection software.
Vocational Training	This funding is to expand the current inmate VLAN in a secure fashion. Benefits include meeting educational needs within multiple facilities and online access for testing and educational opportunities.

Department of Environmental Quality

Initiative Name	Initiative Description
Remediation Information Management System (RIMS)	The purpose of this project is to fund RIMS to improve the availability and quality of information used to support DEQ's remediation and associated programs. Benefits include increased efficiency of collection, reporting, and analysis; facilitation information sharing between programs and stakeholders; measurement of performance and quality, improvement of program management; and enhanced decision support. This is to replace the current remediation system due to unsupported technology and because it is outdated.

Department of Fish, Wildlife and Parks

No initiatives listed for Fiscal Years 2014-2015

Department of Justice

Initiative Name	Initiative Description
MERLIN (Phase 3)	This project continues to implement the MERLIN system which enhances motor vehicle licensing in Montana. The current MERLIN project will institute rollback, where licenses are returned to drivers after suspension; multiple active licenses, where drivers can have more than one type of license active at the same time; and American Association of Motor Vehicle Administrators (AAMVA) Interfaces, which tie Montana's system into a nationwide network.

Initiative Name	Initiative Description
Montana Highway Patrol Cameras	This project would provide for the greater safety of Montana citizens and MHP officers by putting video cameras in the patrol cars. Videos would then be downloaded to division headquarters via wireless connection automatically, freeing up officers' time.

Department of Labor and Industry

Initiative Name	Initiative Description
Status, Tax Accounting, Audit, & Rating System (STAARS)	This project would implement a new unemployment insurance tax system, replacing a 20-year-old, end-of-life program. The system would better meet stakeholder needs by providing self-service functionality, faster processing, more functionality, and better security.

Department of Livestock

Initiative Name	Initiative Description
Computer Replacements	The project purpose and objective is to replace the desktop computers once every five years.
Laboratory Information Management System (LIMS)	The project is to provide the Laboratory Information Management System with a modern, up-to-date, database system that uses newer technologies. The Laboratory Information Management System's purpose is to track all submissions and results to/from the Veterinary Diagnostic Laboratory and to produce statistical reports for use in making disease monitoring decisions and disease control decisions. The current Laboratory Information Management System has missing features and the cost is too high to add the features and upgrade.
Milk licensing and SV30 lab results	The purpose of this project is to replace the application that manages the milk licensing and milk lab results for the Milk and Egg Bureau. Benefits include ensuring that products sold or manufactured in Montana are safe for human consumption. This project is needed because the application is outdated and not flexible in adjusting to needed changes.
USAHerds Maintenance, Support, and Enhancement	The project's purpose is to update the USAHerds application backend database to the newest version of MS SQL Server and to provide ongoing technical support, maintenance, and enhancements to the application.

Department of Military Affairs

Initiative Name	Initiative Description
WEBEOC	The project's purpose is to implement a web emergency management tool that gives city, county, state, Indian nation, and federal governments real-time information for collaboration to manage a crisis across the state and all jurisdictional boundaries. FEMA strongly recommends a interoperability of communications and information management and has purchased the system to be implemented by DMA.

Department of Natural Resources & Conservation

No initiatives listed for Fiscal Years 2014-2015

Department of Public Health and Human Services

Initiative Name	Initiative Description
Medicaid Management Information System (MMIS) Replacement	The project's purpose is to procure a new MMIS. A new system has the capability to create and update state and federal reports without having to prioritize, contain user-friendly components, and improve financial control and responsibility. It also increases the percentage of electronic claims and be of value to providers that currently do not bill electronically. Reasons a new system is needed at this time include numerous systems that do not interface with each other; allowance for management of all health care programs in one system; outdated technology; costly to maintain, operate, and enhance the current system; and federal regulations mandating changes.
CHIMES-SNAP & CHIMES- TANF Eligibility Systems, Enterprise Architecture, (CHIMES EA) and Shared Fiscal Services Layer (SFSL)	The project's purpose is to implement a CHIMES-SNAP and CHIMES-TANF eligibility system which incorporates all eligibility determination and benefit issuance requirements and introduce advanced business functionality into a web-based environment. This improves the availability and quality of information necessary for effective delivery of services to participants, improves worker efficiency, eliminates dual data entry, reduce errors, and enables Office of Public Assistance workers to spend time on qualitative customer care for the citizens of Montana. It also increases the efficiency of collection, reporting, and analysis of data at the state program level and provides simplified client interaction with ease of use. This is needed because the current system is not a cost-effective solution to satisfy business needs.

Initiative Name	Initiative Description
CHIMES-Medicaid / HMK Maintenance and Operations	The purpose of this project is to provide the availability to maintain and enhance the CHIMES-Medicaid/HMK System on an ongoing basis. Benefits include incorporation of all Medicaid-related healthcare programs that the State of Montana has opted to implement from the Social Security Act into one central system; introduction of advanced business functionality; movement of the system off the state mainframe; automate further health care administration; and increase the efficiency of the collection, reporting, and analysis of the data at the state program level. This project is needed to ensure the system suits the business need after implementation and make modifications based on new policies and regulations.
Safety Assessment Management System (SAMS)	The purpose of this project is to implement SAMS to automate the manual safety assessment and provide the management and supervisory elements necessary to ensure a consistent and timely process. Benefits include providing an automated safety assessment process that supports the determination of the present and impending dangers in a child's home and supports families in crisis; automates the entry of safety assessment forms; and maintain privacy and the appropriate access to data.
MMIS Fiscal Agent Contract	This project is for funding the fiscal agent contract with Xerox. It is beneficial and necessary because the system processes over 6 million claims annually, maintains enrollment for approximately 15,000 providers and reimburses these providers through the processing of claims in excess of $800 million.
SEARCHS Maintenance and Support	This project is for the maintenance and operations of SEARCHS. It is crucial to the State of Montana as it is necessary to ensure CSED provides the federally mandated services to Montana citizens and to the federal government. The SEARCHS system will increase the number of Montana citizens receiving appropriate child support benefits, increase the federal incentive that Montana receives, continue to meet or exceed federal requirements, and ensure federal funding is not in jeopardy.
CDS/HMIS Maintenance & Operations	The project's purpose is to provide technical services for the ongoing development (including maintenance and enhancements), testing, database maintenance, production support, user assistance, training, creation of manuals, system documentation, and project management. Benefits include supporting new requirements required by funding agencies; including data interfaces to eliminate duplication data entry; meeting the needs of HRDC; and utilizing National Performance Indicators necessary for ROMA and congressional reporting. The project is needed due to the large system and is needed to support new federal, state, and funding source requirements and improvements.

Initiative Name	Initiative Description
Affordable Care Act (ACA) Eligibility System Enhancement	The purpose of this project is to enhance the Medicaid eligibility system with newer technology to ensure it is ready to support a Health Insurance Exchange and other changes to Medicaid and Children's Health Insurance Program eligibility required by the ACA. This will allow Montana to implement ACA requirements and better meet the needs of the state and its public assistance clients.
CAPS Maintenance and Operations	The primary purpose of this project is to fund the maintenance and operations of the CAPS system that are required to meet practice and regulatory changes. Benefits of this project are the continuity of operations with diligent efforts to maintain safety, confidentiality, fiscal responsibility, services, and day to day functions necessary for child protective services.
CCUBS Maintenance and Support	The purpose of the CCUBS project is to provide the maintenance and enhancement support to ensure continuous and ongoing operations. Benefits include finish automated interface for the ARMS system; develop interface for federal 'Error Rates'; develop electronic versions of documents; develop a better model for contracts development; develop a document management solution; web enable notifications, EOBs, and Remittance; develop a web-based solution for invoice entry; and add provider portal capability. This project is necessary because continual enhancements are needed based on new contracts, federal requirements, software upgrade, and program driven enhancements.
IIS Replacement and Operations	This project's purpose is to replace the current IIS system with an improved IIS system. Benefits include improved immunization coverage rates, provision of a forecasting to and reminder/recall, and ad hoc reporting. This system is needed to increase participation and more providers will use the IIS tools to reach more Montanans in need of immunizations.
EBT Outsourcing	The primary purpose of this project is to engage in a coordinated effort within the department to utilize an EBT vendor to meet the needs of EBT services for SNAP, TANF, and WIC. Benefits include promoting a cost effective delivery of EBT. This project is necessary because the price/availability is estimated to cost less than the current cost for maintenance and operations.
Montana Access (EBT) Maintenance and Support	This project is to provide funding for maintenance and support of the Montana Access EBT authorization platform. Benefits include containing all the functionality required by state and federal regulations to support SNAP program transactions and TANF benefits, and extensible so that future state programs such as childcare, child support payments, and Medicaid benefits could be added to the system.

Initiative Name	Initiative Description
DDP Subsystem Maintenance & Operations	The project is to provide on-going maintenance and support of the AWACS DDP subsystem and ICP web application through implementation of identified enhancements, anticipated enhancements, general system maintenance and support, system administration support, and project management support. The maintenance and enhancements request more hours than is provided with the current staffing level.
Vocational Rehabilitation Intelligent Case Management System Implementation and Maintenance	The purpose of this project is to replace the outdated, custom-built, case management system used by Vocational Rehabilitation and address deficiencies for blind and low-vision users.
Big Sky Rx (BSRx) Facility Maintenance Project	The objective of this project is to perform BSRx Facility Maintenance activities specific to the needs of the Montana Pharmacy Program. Benefits of the project are to ensure the program's objectives and meet the needs of Montana's citizens. It is necessary to gain the expertise and knowledge necessary to maintain and enhance the BSRx system.
Support and Hosting of MIDIS	This project will provide on-going hosting and support of MIDIS that was brought in-house July 2010. MIDIS facilitates and automates disease surveillance and reporting activities. The project funding is to support in-house hosting and support of the system.
CHIMES SNAP and TANF maintenance staffing	The main purpose for this initiative is to ensure the new SNAP and TANF eligibility systems, Enterprise Architecture, and Share Fiscal Services Layer have sufficient project staff and expertise to manage the maintenance and support of the new systems.
TEAMS Maintenance and Support	The purpose of this support project is to outline an infrastructure to maintain optimal system performance and prioritize and incorporate changes to the system to meet new federal and state mandated programs and policies. Benefits include incorporating income/resource and expense budgeting logic within the system; provide tools such as system correspondence functionality, worker alerts, and case notes to improve documentation and eligibility; issue benefits for all three programs in one system; interface with external accounts receivable, eliminate data duplication; coordinate with public assistance peripheral programs; and database collection for Medicaid eligibility and decision support. The funding is for ongoing effort towards goals and objectives.

Initiative Name	Initiative Description
Statewide Automated Child Welfare Information System (SACWIS) Replacement	The purpose for the project is to improve the availability and quality of the information necessary for the effective delivery of timely and accurate services required to protect Montana's at risk children, to help preserve Montana families, and to provide data integrity and system availability. Benefits include providing all the functionality required of a federally certified SACWIS, increased efficiency, measure performance and quality through assessment, reduce time and cost, automate business rules, improve interfaces, and provide secure access to providers.

Department of Public Service Regulation

No initiatives listed for Fiscal Years 2014-2015

Department of Revenue

Initiative Name	Initiative Description
Disaster Mitigation and Records Management	The purpose of this project is to build the structure responsible database backup plans and disaster planning and recovery strategies, install records computer program, and expand remote scanning. Benefits include an efficient and systematic control of the creation, receipt, maintenance, use, and disposition of paper and electronic records.
Enhance E-Services for Property and State Taxes	This request would provide a variety of online and convenient electronic services for citizens, local governments, and the state. These services include functionality that ensures the security and accuracy of the data resulting in better service and timely tax collections. The project is necessary to bring benefits of electronic tax administration to property and other taxpayers.
Ongoing System Maintenance and Support	This project is for ongoing maintenance and support for GenTax, the department's core tax administration system. This is needed because the tax administrative demands have expanded dramatically since the original implementation.
PAD Video Conferencing	The primary purpose of this project is to implement method to conduct meetings using electronic collaboration technologies. Benefits include energy efficiency, improved productivity, communications, education and training, and reduced travel time. This is necessary to make state-wide information sharing and training more effective, productive, safe, and cost effective.
Web-based application portal for 1-Stop Licensing	The project will create a secure web-based electronic portal to the existing One-Stop Licensing business licenses. Benefits include the ability to apply and renew via the web instead of through the mail.

Department of Transportation

Initiative Name	Initiative Description
Maintenance Management System	The purpose of this project is to replace the current Maintenance Management System (MMS). Benefits of this include providing MDT managers the ability to set goals, develop, implement, and maintain work programs; analyze personnel and equipment; allow for management of information not currently available in the MMS system; and improve timeliness, accuracy of data collection, and employee efficiency. This project is needed due to the current system being outdated, having been developed in the 1980's.
Safety Information Management System	This project is to replace the Safety Information Management System. Benefits include identifying and implementing the best long-term solution in support of the safety improvement goals. This system is currently outdated and does not provide detailed analysis and query needs.
Commercial Vehicle Information System	The purpose of this project is to enhance the existing credentialing system. This will improve customer service and automate processes. The current processes are inefficient, outdated, and manual.

Governor's Office

Initiative Name	Initiative Description
Constituent Relationship System	This project's purpose is to implement a new system to manage constituent relationships. The current system is incomplete, cumbersome, and involves duplicative and wasteful effort. The new system will comprehensively manage constituent relationships; all correspondence to and from constituents; and track board appointments, vacancies, and constituent applications.

Montana Arts Council

No initiatives listed for Fiscal Years 2014-2015

Montana Historical Society

No initiatives listed for Fiscal Years 2014-2015

Montana Public Employee Retirement Administration

Initiative Name	Initiative Description
MPERAtiv	This project's purpose is to implement a new line of business (LOB) system that will allow plan members to access information online as is needed. This will improve business processing to meet customer expectations, provide improved services, and reduce increasing workload of MPERA staff. The project is needed now because MPERA does not provide members access to accounts via the internet. Also the current mainframe system uses a system that is nearing the end of its life cycle, hard to maintain and enhance, and difficult to staff.

Montana School for the Deaf and Blind

No initiatives listed for Fiscal Years 2014-2015

Montana State Fund

Initiative Name	Initiative Description
Data Centric Initiatives	This initiative will continue to leverage MSF's large volume of workers' compensation data. Benefits include continued data driven decision making and ongoing monitoring of complex business issues. Funding is necessary as MSF is the largest workers' compensation carrier in Montana and needs the most accurate and complete data.
Application and Infrastructure Lifecycle Support	This project will complete the existing application, system, and infrastructure change requests. This will ensure an efficient and stable business operating environment. This project is needed to maintain, enhance, and keep business applications and operation systems within vendor supported versions.

Montana State Library

No initiatives listed for Fiscal Years 2014-2015

Montana State Lottery

No initiatives listed for Fiscal Years 2014-2015

Office of the Commissioner of Higher Education

No initiatives listed for Fiscal Years 2014-2015

Office of Public Instruction

Initiative Name	Initiative Description
Educator Licensure	This project's purpose is the replace the existing Educator Licensure application with a new system. Benefits include assess and communicate the quality of achievements of K-12 education, provide access to management of information and data related to K-12 school improvement, and support accountability and improvement in all Montana school. The current system is an outdated legacy system.
Direct Certification Process Improvement Project	The primary purpose for this project is to automate and improve the timeliness, efficiency, and overall experience of the direct certification process. Benefits include providing meal assistance to as many eligible children as possibly, and providing a framework for matching personal information from different systems for tracking purposes. This project is necessary to meet the USDA goal of increased direct certification rate.
Growth and Enhancement of Montana Students (GEMS)	The purpose of this project is to create enterprise-wide data architecture for Montana's education data systems. Benefits include a data governance structure, data warehouse and migration of data, and tools to make data accessible to many different users. There is not currently a system to track K-12 data longitudinally.
Student Transcripts	This project is to collect and store K-12 student transcripts for use in a data warehouse. This will address data collection and data linkage among K-12 education and postsecondary institutions. Currently K-12 transcripts data is not collected and needs to be to meet the requirements for the Data Quality Campaign.

Office of the State Public Defender

No initiatives listed for Fiscal Years 2014-2015

Secretary of State's Office

Initiative Name	Initiative Description
Secretary of State Information Management System (SIMS) - Phase 2	This project will replace numerous redundant systems with a web-based, image, and text searchable system. The system contains information on every registered business in Montana and several other small applications and databases. The current system is an outdated legacy mainframe application.
Statewide Voter Registration System (SVRS)	This funding is for the continued support for the Statewide Voter Registration System and Elections Management System (MT Votes).

State Auditor's Office (Commissioner of Securities and Insurance)

Initiative Name	Initiative Description
CSI Legacy Application Replacement	The purpose of this initiative is to replace the CSI's outdated central application system, SAOProd. The project includes phasing out the old system and successfully migrate all existing insurance regulatory operations.
Electronic Documents Management System	The purpose of this initiative is to replace the outdated scanning software currently in use at the CSI. Benefits of the replacements include a system that is efficient, effective, scalable, and fully compliant with state and federal rules and regulations. There is a need due to the increased number of documents to be scanned.
Technology Core Replacement Cycle	This initiative will allow ongoing technology infrastructure replacement for mission-critical systems that previously were not built into the budget. This base adjustment will allow the CSI to proactively replace technology in accordance with the schedules recommended in the state's enterprise policy and industry best practices. This will bring CSI in compliance with the state's existing technology replacement cycle.

Teachers Retirement System

No initiatives listed for Fiscal Years 2014-2015

FUTURE INFORMATION TECHNOLOGY TRENDS IMPACTING MONTANA

Smart Government

Smart government focuses on IT sustainability and agility by uniting procurement, enterprise architecture, and security. It looks to create public value by integrating different forms of technology across multiple agencies or jurisdictions throughout planning, management, and operations. Smart government does not advocate doing more; rather, it places emphasis on collaboration across domains to drive down costs and increase results.

Governments are increasingly finding that they are under pressure to do more with less. With the Great Recession still looming over public sector budgets, the need to fulfill citizen needs with a reduced pool of resources exists almost everywhere. This pressure is nothing new. Since the 1970s, governments have been trying to meet citizen needs with dwindling funding and staff.

The trend of information technology inside government has stood in stark contrast to this tendency. Whereas operational areas have generally tried to do more with less, IT has been trying to do more with more. The rapid growth of the internet has fueled this with ideas such as egovernment – placing government services online – and Open Government – community engagement through transparency and collaboration. With shrinking budgets, governments are increasingly looking at IT spending and asking about the return on IT investment. Out of this trend has emerged the concept of "Smart Government".

As the Smart Government concept advances, increasing pressure will be placed on the State of Montana to find new and innovative ways to transcend both the citizen-government divide and the agency-agency divide. Many citizens do not see separate branches of government or separate executive branch agencies. Instead, they see the State of Montana as a unified whole. As time goes on, the ability or inability for Montana to act as that perceived whole will mark success or failure.

An example of a future Smart Government endeavors might include linking the Constituent Management Systems used by agencies so that an agency working with a citizen can see all of the contact other agencies have had with this citizen. Under such a system, the Governor's Office could see that a citizen who was complaining about lackluster response had previously contacted DOJ, DLI, and DEQ trying to get permitting issues resolved.

Cloud Services

The most rapidly evolving area inside of IT today is cloud services. "Cloud" denotes the ability to dynamically increase or decrease service capacity to match usage needs. While it has started in the computing area, cloud services have spread to non-computing arenas. Cloud services are defined by five characteristics:

- *On-demand self-service. A consumer can unilaterally provision computing capabilities…without requiring human interaction with each service provider.*
- *Broad network access. Capabilities are available over the network and accessed through standard mechanisms...*
- *Resource pooling. The provider's computing resources are pooled to serve multiple consumers…with different…resources dynamically assigned according to… demand...*
- *Rapid elasticity. Capabilities can be…provisioned and released, in some cases automatically, to scale rapidly…with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time.*
- *Measured service. Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service.* [3]

Cloud services comes in a variety of flavors. In the computing world, the terms infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS) are common denotations of cloud. However, more exotic varieties are now springing up including network as a service and even business process as a service. The latter example can include managing payroll, mailing products, or managing lines of credit. It should be noted that cloud has become a buzzword, with many outsourcing options termed "cloud" without exhibiting the actual characteristics.

Montana has started to use cloud services in select areas. Montana has partnered with Utah, Oregon, and Colorado to go forward with the Western States Contracting Alliance (WSCA) contract process for cloud storage of GIS data. Montana State Fund is initiating the use of cloud software as a service for their human resource information system. The continuing issue for the state is to manage the fine line between maximizing the advantages of cloud service hosting while minimizing the risks, most importantly security concerns.

Mobile Computing

In 2007, Apple released the iPhone, setting in motion an irresistible force that is called "mobile computing". While laptops, tablets, and mobile phones existed before 2007, the integration of an anywhere internet with a small computing device changed the way that business was conducted. Today, it is taken for granted that most professional organizations – including government – rely on anywhere, anytime computing. While this mobile computing industry has exploded, a number of factors trouble government usage.

First, many users and employees want to use their own devices – phones, tablets, and computers – rather than those provided by the state. This "bring your own device", or BYOD, can greatly reduce the cost to the state for hardware. It also means that the state must find ways to allow users to securely access information that has normally only been available on state-owned

[3] National Institute of Standards and Technology, (2011). Available at: http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf

devices. While state-owned devices are managed by the state to ensure security, a BYOD device could be comprised and expose the state to unknown security risks.

Furthermore, mobile computing relies on either cellular networks or wireless networks. Montana has invested heavily in wired networks. While not impossible, making the change to a wireless infrastructure requires another investment by the state. Thus, while enabling greater freedom, the mobile computing revolution will also require additional resources.

Such issues will need to be examined and solved. Mobile computing has been gaining pace and is a near-ubiquitous part of western society. Current and future workers are expecting they will be able to work for and contribute to the state using their own mobile devices. To not allow this to occur would place Montana behind not just other states, but the economic and technological curve of the entire world.