



State of Montana

**Department of Public Health and
Human Services**

Information Technology Plan 2014



Healthy People. Healthy Communities.

Department of Public Health & Human Services

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1. Executive Summary

Montana has three basic business drivers that shape the State's programs and Information Technology (IT) strategies: jobs, education, and effective/efficient government. The Department of Public Health and Human Services (DPHHS) mission is to improve and protect the health, well-being, and self-reliance of all Montanans. To fulfill that mission the department has made significant investments in information technology. Our systems and the data they collect and manage are mission critical for the programs they support. Responsibility for these systems lies within the Technology Services Division (TSD), which is charged with system development, maintenance, and operations. TSD is also charged with IT system procurement, project management, and data center and telecommunications services.

The department strives to manage its systems as an overall integrated portfolio. System life cycle management is key in keeping up with fundamental technology changes like web services, enterprise service architecture and cloud based systems. Several of the department's largest and most complicated systems have reached end-of-life and are scheduled to be replaced or in the midst of being replaced. The department is going through a modernization effort with the goal of being off the State of Montana mainframe system by the end of 2019.

The system replacement efforts are putting in place the next generation of IT systems. The new generation of department systems must be built to:

- Improve the integration of services to customers that use more than one of the department's programs.
- Improve the quality, integrity, reliability, and security of data used to administer the department's programs and provide benefits to customers.
- Increase the value and lower the risk of the department's investment in information technology by providing components that can be shared and reused by many systems within a well-understood framework.

The system modernization efforts will incorporate technologies such as business rules engine, web services and Service-Oriented Architecture (SOA) into the design for replacing the legacy human service systems. The goal of the replacement effort is to foster holistic service delivery where programs collaborate with each other in meeting the needs of individuals and families.

Our plan includes goals and objectives that directly support the department's strategic goals and objectives and are aligned with the goals in the State IT Plan published by the State Chief Information Officer (CIO). The DPHHS IT Plan supports department-wide initiatives to enhance the service levels of all its programs by establishing an enterprise-based environment. This will increase the efficiency of service delivery by facilitating information sharing while maintaining the data, functionality, and confidentiality unique to each program. All of the initiatives presented in this plan are designed to ensure that the department is able to accomplish its mission to promote the health and welfare of the citizens of Montana.

2. Environment, Success, and Capabilities

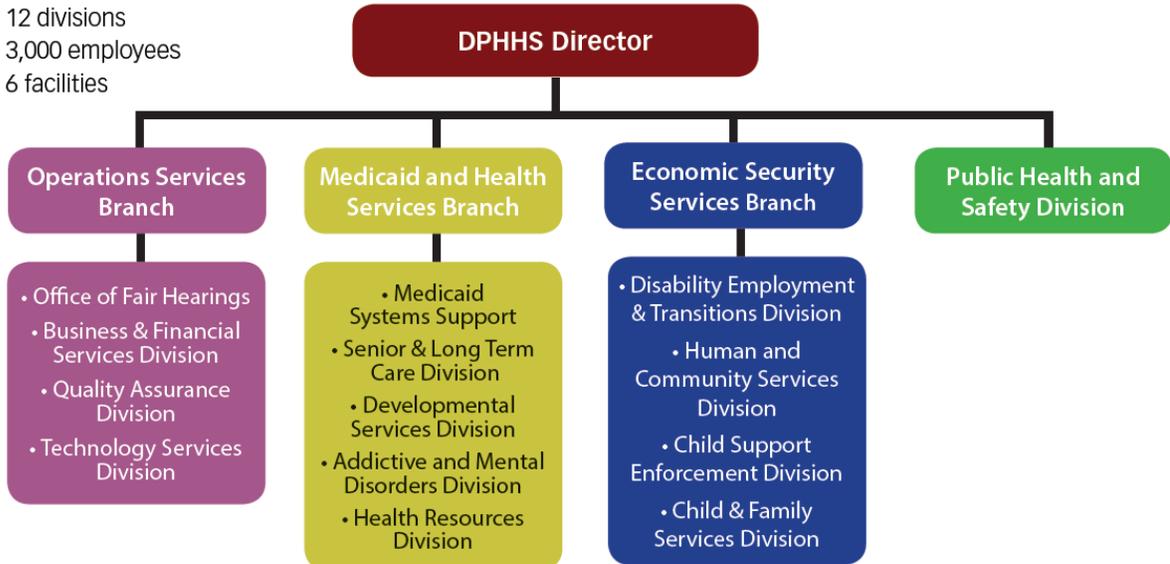
The Department of Public Health and Human Services is a diverse state department that provides services for people all over Montana. It is the largest department in state government with over 3,000 employees, a nearly \$3.8 billion dollar annual budget and almost 2,500 contractual agreements with partners in every community across the state including eight tribal governments. The department's mission is to improve and protect the health, well-being and self-reliance of all Montanans. Montana's small population, scattered over an immense area, poses challenges in delivering information technology support services. We make a big difference in thousands of Montanans' lives, families and communities every day.

The department has three branches: Operations Services; Medicaid and Health Services; and Economic Security Services. Each branch has several divisions under its umbrella. The department has a total of 12 divisions. In turn, each division oversees numerous bureaus, programs, services, grants, and facilities. The Public Health and Safety Division is unique in the organizational structure as it is directly attached to the Director's Office. The other functions that reside within the Director's Office include the Office of Legal Affairs, Human Resources, Public Information, Government Support, and the Prevention Resource Center.

The Technology Services Division is part of the Operational Services Branch and is charged with IT system development and maintenance, procurement, project management, and data center and telecommunications services for the Department.

How DPHHS is organized

- 3 branches
- 12 divisions
- 3,000 employees
- 6 facilities



Funding

The department derives its funding from three major streams: federal funds, state general funds and state special revenues. State general funds are greatly leveraged by using them as a match for federal dollars. Below is a breakdown of where the department received its funding for the 2013 Biennium.

Source	Amount	Percent
Federal Funds	\$2.6 billion	70 percent
State General Funds	\$837 million	22 percent
State Special Revenue	\$307 million	8 percent
Total Funding -	\$3.8 billion	

The department has some of the most complex and resource-intensive IT systems in the State. It is a primary user of the State of Montana Mainframe with three large programs remaining on the system. The old Medicaid, Supplemental Nutrition Assistance Program (SNAP), and Temporary Assistance for Needy Families (TANF) eligibility system called TEAMS is currently in archive mode. TEAMS was fully replaced in November 2012 with the second phase of CHIMES. The State's child welfare system (CAPS) and the child support enforcement system (SEARCHS) remain on the mainframe. Funding to develop an RFP and planning necessary to replace CAPS was authorized by the 2013 legislature. We will be proposing funding to replace the CAPS system during the 2015 legislative session. The department will be proposing funding to develop an RFP and planning necessary to replace SEARCHS during the 2015 legislature, with anticipation of proposing the system replacement funding during the 2017 session.

The department has over 177 separate IT systems and applications including everything from health facility licensing, laboratory management, case management to accounts receivable, and various other internal and external support applications. One of the goals of the department is to manage all these applications as a portfolio with a defined system lifecycle. A large number of applications need upgrading to the most recent versions of web services and databases. In addition, a number of systems need redesign and replacement to fit with new program business requirements.

The department has over 100 separate locations across the state including six major facilities. TSD manages over 3,000 personal computers in addition to 400 tablets and various mobile devices. Network bandwidth at affordable prices to the remote locations is a key driver of technology adoption. A reliable high-speed network allows the department to implement such things as a video learning system, remote desktop management tools, Voice over Internet Protocol (VoIP) phone systems, desktop video conferencing, document imaging, electronic health records, and remote medical imaging.

The department serves Montanans from border-to-border. Our programs aim to increase Montanans self-reliance, success, and connect them to community resources. The key business drivers for the department are to serve citizens effectively and efficiently, improve the delivery of children and adult mental health services, create a strong statewide system of early childhood services, strengthen effective health and human services programs, and provide through Medicaid health care coverage for eligible Montanans. A number of department initiatives around holistic family based services require the exchange of information between systems. The department is working towards a fully realized enterprise system architecture that allows data interchange easily over a defined application called a "service bus" (see Section 4 for more information).

Other business drivers for the department are various federal and state rules and regulations. The key technology regulations are ones associated with HIPPA, IRS Publication 1075 (security), and National Institute of Standards and Technology (NIST) security standards and guidelines. The department has implemented a NIST based security framework, which requires a significant amount of staff work to ensure compliance. For more information about the department's security program, see section 12 of this document.

**STATE
OBJECTIVES**

Education
Increase post-secondary education levels

Jobs
Increase employment and compensation levels

Efficient and Effective Government
Minimize government expenditures and increase the value and impact of state delivered services

**DPHHS BUSINESS
REQUIREMENTS**

To improve and protect the health, well-being and self reliance of all Montanans.

All Montanans are healthy and safe from injury and have access to high-quality health care.

All Montanans, including the elderly and those with disabilities, have the tools they need to be as self-sufficient as possible.

All children are wanted, safe and living in healthy families.

**DPHHS IT BUSINESS
REQUIREMENTS**

Provide efficient and effective IT services

Manage system data protection and security

Manage system development and replacement projects

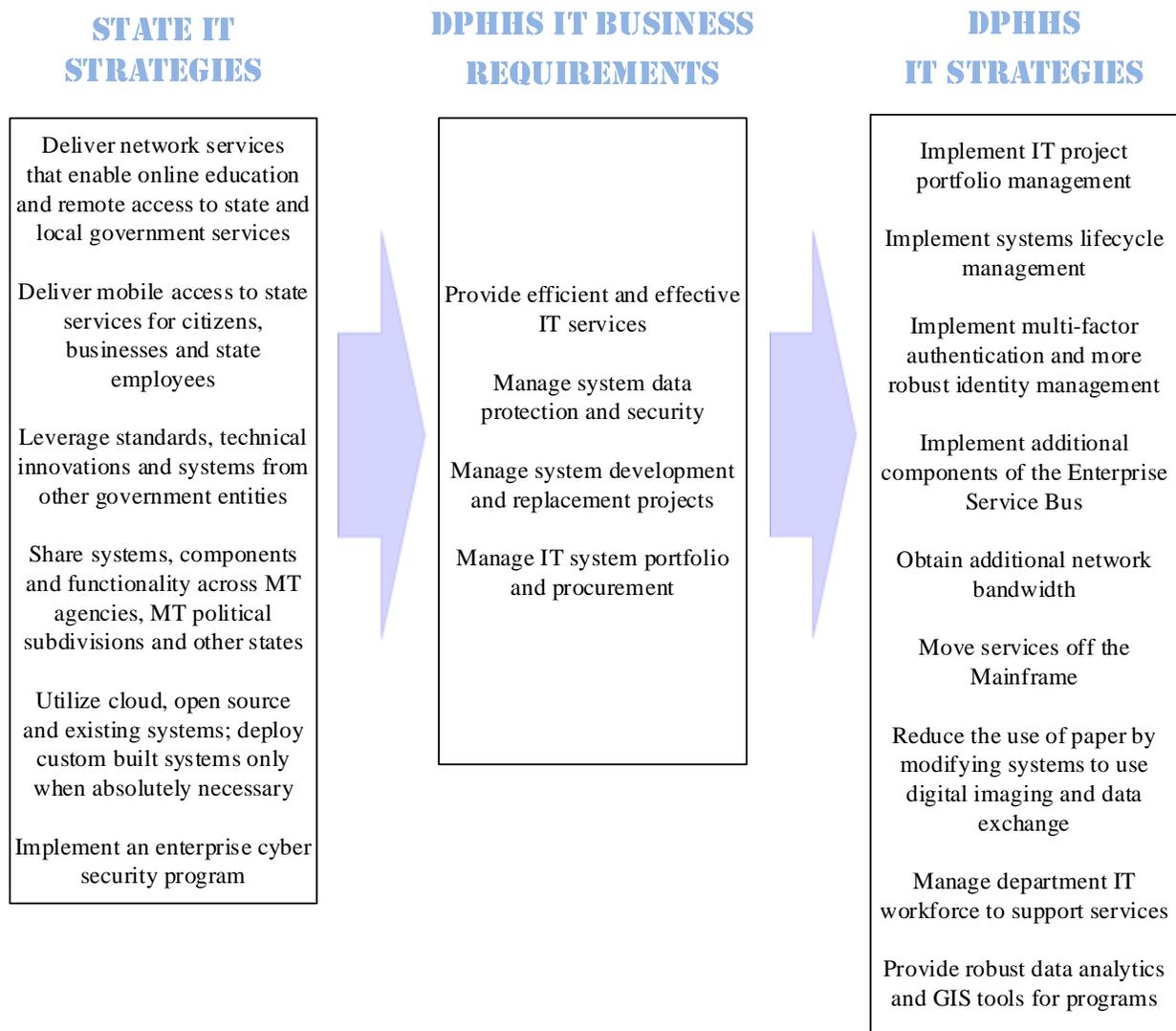
Manage IT system portfolio and procurement

3. IT Contributions and Strategies

The department’s IT business strategy is to support the state’s three primary strategies and the department’s mission to improve and protect the health, well-being and self-reliance of all Montanans. Not all IT programs and projects will address all three state business strategies but all IT projects will support at least one strategy and the department’s mission. Most IT projects and systems focus on efficient and effective government to support the department’s mission.

TSD obtains, for the department, a wide variety of services and applications from providers. These services may be developed and operated by internal staff resources, State Information Technology Services Division (SITSD) enterprise services, external contractors such as Northrop Grumman and Deloitte, or other external partners like cloud service providers.

The department’s IT strategies are described below:



- IT Project Portfolio management consists of managing all IT projects, in total, within the department in a deliberate manner. Allocation of scarce resources and setting of priorities are done collaboratively across the department where overall objectives are considered and managed.
- IT Systems Lifecycle management consists of inventorying all systems within the department and then managing the operations and regular replacement of those systems in a coordinated fashion.
- The department will implement multi-factor authentication for those systems that have protected personnel information or other data. Systems will use multi-factor authentication as funding and resources permit.
- The department will obtain additional network bandwidth as funds permit to enable key technological innovations that improve efficiency and effectiveness.
- The department will move legacy services off the State of Montana Mainframe with the goal of being off by late 2019.
- The department will continue to enhance its enterprise services bus by adding additional reusable components.
- The department will continue to modify existing systems and develop new systems to use digital imaging and electronic data exchange.
- The department will actively manage its IT workforce to provide clear career development paths for staff.
- The department will promote and provide data analytics and Geographical Information System (GIS) tools for programs.

4. IT Principles

The department's IT principles govern activities and decisions made in choosing what to implement as services and how to implement those services. The principles form the basis for specific policies and actions taken by the department. The following principles build on the principles outlined in the State's strategic plan:

- Resources and funding will be allocated to the IT projects that contribute the greatest net value and benefits to the department's clients and operations.
- Reuse of systems and electronic sharing of data will minimize unwarranted duplication of systems and services.
- IT resources will be used in an organized, deliberative and cost-effective manner.
- Systems will provide citizens easy access to services and their data.
- Data about citizens and clients will be protected and the risks of improper disclosure of data will be mitigated.
- External providers of IT services will be used where it makes fiscal and management sense.
- The full lifecycle of systems including the strategy for retirement and replacement of systems will be managed.
- The department will actively encourage replacing paper processes and paper data exchanges. Paper will be replaced by electronic data exchange and where necessary digital imaging of documents.
- Remote administration technology will be used to manage services and systems. (*"Bandwidth is cheaper than Admin"*)
- New systems will be built on modern web based service oriented architectures. Old client-server and Mainframe systems will be actively decommissioned and replaced.
- New systems will be built with interfaces and appropriate geo-tagging of data to be used with GIS systems.
- Systems will be designed and implemented according to the Medicaid Information Technology Architecture (MITA) principles.
- The Information Technology Infrastructure Library (ITIL) 2011 edition framework of Information Technology Service Management (ITSM) principles will be used to manage delivery of IT services to users and clients.
- Systems and services will follow security controls based on the federal National Institute of Standards and Technology (NIST) security standards.
- Principles in the *"A Guide to the Project Management Body of Knowledge (PMBOK)"* from the Project Management Institute (PMI) will be followed for managing projects.
- The Department's overall portfolio of IT projects will be managed using PMI's *"Standard for Portfolio Management"* guide.

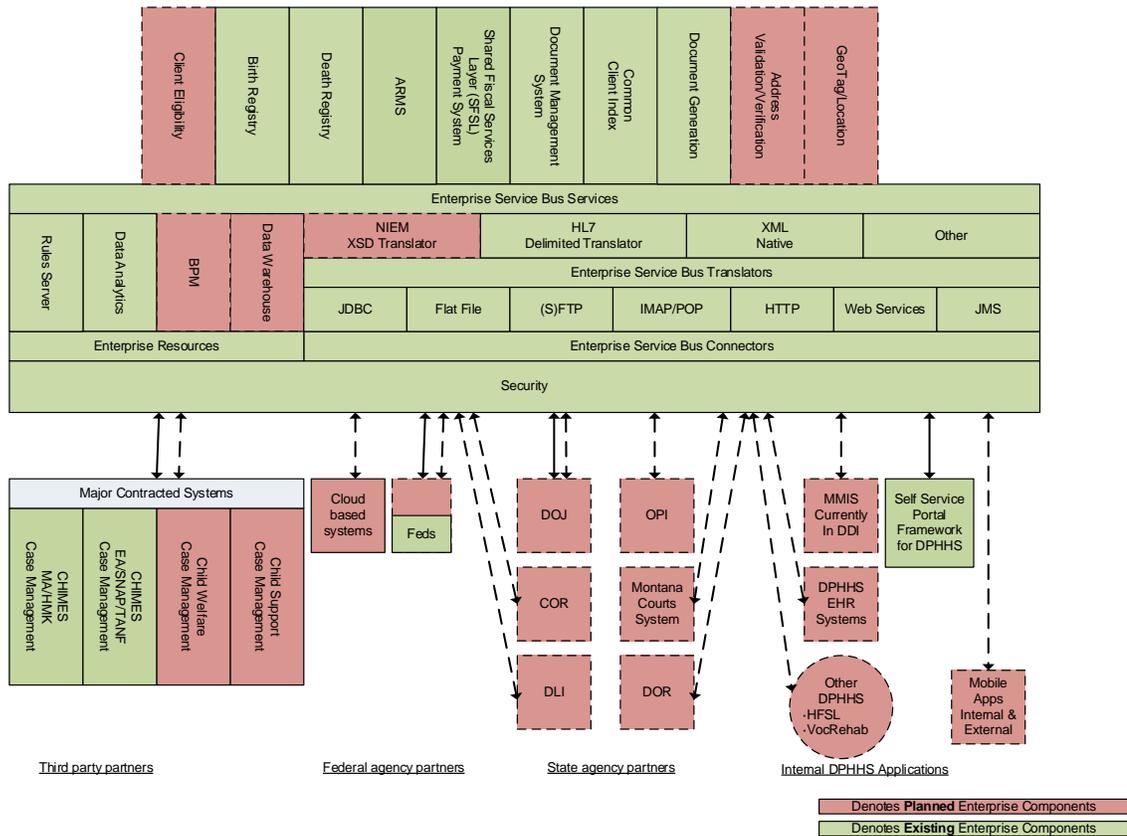
DPHHS Enterprise SOA Architecture and Enterprise Service Bus

The department is moving away from monolithic and outdated legacy systems toward a vision of web-based, people-friendly, and interoperable systems. Enterprise Service Oriented Architecture (SOA) based architecture is the centerpiece of this shift from the present to the future. This architecture will allow separate, standalone systems to communicate using exposed, shared services through a common shared architecture and service bus. Users will be able to access data from multiple systems seamlessly, and errors associated with redundant data entry will be reduced. Enterprise SOA based architecture is reshaping the way the department serves Montanans and does business.

- SOA
- Web Client
- Cloud where advantageous

“Enterprise Service Bus Vision”

Version: 20140228-1



The department employs SOA for system interoperability that takes advantage of Commercial Off-The-Shelf (COTS) products and allows for the reuse of system components across business functions as services. SOA is an approach to loosely coupled, protocol independent, standards-based distributed computing where software resources expose their functionality as services and are available across the network. The department has implemented a data exchange service bus that provides interoperability that makes use of multiple industry standards, including HL7 (V 3), XML, XSLT, WS-I, WSDL, SOAP1.1 or 2.0, UDDI and WS-BPEL. The department’s current and future system replacement projects will be required to align with these standards.

The department also plans to collect and store data from multiple systems for the purpose of decision support. The department envisions an enterprise data warehouse and data marts that will allow data mining and analytics. This service is essential in the assessment of program performance and efficacy, particularly for evaluating the impact and correlation of services from multiple programs and agencies over time as it affects a single client or a population. Accordingly, internally and externally hosted systems will have the capability to transmit data to a data warehouse and other databases within the department. A data mart and data analytics service has been implemented as part of the department’s enterprise services.

Finally, for future healthcare systems, the department follows the federal guidance on the Medicaid Information Technology Architecture (MITA) principles that are associated with high-quality software

systems (e.g., scalability, adaptability, secureability, availability, manageability, and interoperability) as the basis for the system architecture. To this end, the department is currently replacing its legacy Medicaid Management Information System (MMIS) with one that is fully aligned with the MITA standards. The department intends to continue to adhere to the MITA roadmap for controlled and strategic transformation for all programs and systems.

5. IT Governance

The department's IT governance rests with the department CIO with oversight from the branch managers and the department director. Planning and coordination of IT projects are managed as a partnership between the individual divisions and TSD. The department's division administrators have significant input and control over IT decisions in their respective areas. The shared vision of a single connected enterprise helps to resolve conflict and competing program priorities.

IT projects and system requests are managed via fiscal procurement controls including the department's procurement request process. The need for a new IT system or service is typically identified at the business level. A business case for the new service is presented through either the EPP process or the procurement process. Both these processes require a description of the business need, the proposed solution and budget information. This information is used within these two processes to determine whether to move forward with the new service. The department is developing an IT project portfolio with associated governance based on the Project Management Institute's "*the Standard for Portfolio Management*" framework. The department has not implemented formal IT project portfolio management at this time.

The department CIO recommends IT policy to the director and branch managers for adoption by the department. Policy and standards enforcement is done via the management chain including the department director, as necessary. Policies are emailed to staff and posted on our internal website.

The CIO has authority to manage the provision of IT services and programs to the department both internally and from external partners such as SITSD. The CIO signs all IT contracts for the department. The Compliance and Security Office of TSD manages IT contracts while the Project Management Bureau (PMB) manages large system projects and associated contractors.

The Network and Communications Bureau (NCB) manages system change control for desktop systems and support services. NCB operates the department's Technology Service Center (TSC / help desk) which uses Microsoft Systems Center for ticket tracking. PMB manages change control for large contracted systems such as CHIMES. PMB uses a commercial software product for tracking bugs and issues and project management called JIRA along with the contractor to manage and determine system changes. The Information Systems Bureau (ISB) manages change control for internally developed and managed applications. ISB uses a separate request management system to track changes but will be migrating to JIRA in mid-2014. Change control communication is coordinated via the TSC. A goal of the CIO is to have all outage and change notifications for major systems sent by the TSC.

One of the objectives of the department is to implement the Information Technology Infrastructure Library (ITIL) 2011 edition framework for IT Service Management. ITIL will help the department better manage and operate the complex IT systems it has.

6. IT Financial Management

Funding for the department IT services and TSD is a combination of general, state special revenue, and federal funds. The funds are appropriated via the General Appropriations Act (HB 2) for on-going IT services and the Long Range Information Technology Act (HB 10) for development and implementation of large systems development and replacement. The projected IT budget for TSD for SFY 2014 including Long Range IT projects is \$39.8 million. This amount includes \$5.0 million for personal services for IT staff positions. The overall department's spending on IT for SFY 2014 is \$53.86 million. The table below summarizes the budget categories for TSD.

<u>Expense Category</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016 (estimated)</u>	<u>FY2017 (estimated)</u>	<u>FY2018 (estimated)</u>	<u>FY2019 (estimated)</u>
-	-	-	-	-	-	-
Personal Services	5,037,891	4,974,399	5,189,028	5,189,028	5,189,028	5,189,028
Operating Expenses	7,354,245	7,416,626	7,416,626	7,416,626	7,416,626	7,416,626
Initiatives	27,483,933	45,018,146	50,926,790	27,414,357	36,429,333	41,583,499
Other expenditures						
Totals	39,876,069	57,409,171	63,532,443	40,020,011	49,034,987	54,189,153

The department takes advantage of federal funding opportunities where state general fund or state special revenue fund dollars can be matched with federal dollars. Recently the department used a waiver to OMB A-87 to use Medicaid 90/10 matching funds to implement various system infrastructure components including the Enterprise Service bus. A large amount of the department's IT budget is derived from federal sources at 90/10, 75/25, or 50/50 match rates.

Controls on the fiscal management for IT systems funding are various cost allocation plans including the DPHHS Public Assistance Cost Allocation Plan. The Children, Families, Health, and Human Services Committee and the Legislative Finance Committee regularly review the department's budget information. The department is also required to report fiscal information monthly, quarterly and annually to federal funding partners including ACF, FNS, and CMS. Federal Advance Planning Document (APD) reporting for IT systems development and implementation is required and submitted on a regular basis. The department follows various standard internal fiscal controls as established by GAAP, GASB, and the Montana Operations Manual. The department also follows federal and state fiscal statute and regulations and various federal policy directives such as A-133 and OMB A-87.

Federal Advance Planning documents

Some of our federal partners require APDs for systems which meet specific criteria set by each federal agency. The APD process is a series of successive steps through which State agencies obtain Federal prior approval of and Federal financial participation (FFP) in IT system projects. The APD process includes the following:

Planning Advanced Planning Documents (PAPD) requests funding for planning activities; specifies the nature of the IT system project; investigates the feasibility, system alternatives, requirements, and resources needed to move forward with the system development.

Implementation Advanced Planning Documents (IAPD) addresses system analysis, design, development, integration, testing and deployment; completes the planning phase; requests funding for enhancements to ongoing operations; and obtains approval to conduct implementation activities.

Annual Advanced Planning Document Updates (APDU) can be planning or implementation. It is an update to an ongoing project and is required annually when planning or implementation activities occur for more than one year.

Advanced Planning Document Updates, As-Needed (APDU As-Needed) can be planning or implementation. An APDU As-Needed may be needed for unexpected project changes that significantly affect project cost and outcomes.

Each federal agency has slightly different criteria for APDs. The department must submit the APDs to the Federal partners to obtain, or maintain, FFP. In addition to the APDs, the APD process also requires federal partner approval of RFPs, contracts and contract amendments that meet the criteria for APD requirements.

The expected APDs for the next biennium include:

- CHIMES-SNAP as needed APDU
- Affordable Care Act Eligibility and Enrollment annual APDU
- Affordable Care Act Operational annual APDU
- Electronic Benefits Transfer (EBT) IAPD
- CHIMES-Medicaid as needed APDU
- SEARCHS annual APDU / Operational Advance Planning Document Update (OAPDU)
- Child and Adult Protective Services (CAPS) annual APDU
- Montana Automated Child Welfare Information System (MACWIS) as needed APDU
- MMIS annual APDU
- Health Information Technology (HIT) annual APDU

7. IT Services and Processes

The department operates, maintains, and/or uses over 177 separate systems. The department also uses various systems provided by SITSD like the Exchange email system and the Mainframe. The following is a list and short description of some of our major line of business IT systems:

- Montana Medicaid Information System (MMIS) – This system accepts, processes, and pays the Medicaid, CHIP and Montana Mental Health Service claims for the State. It is a hosted solution and is operated by Xerox which also acts as the State’s fiscal agent for Medicaid.
- CHIMES – This system is the combined eligibility management system for Medicaid, SNAP, TANF, and the Healthy Montana Kids (HMK). HMK is also known as the Children’s Health Insurance Plan (CHIP). CHIMES is actually composed of three separate components (SNAP, TANF, and MA/HMK) that work together as a single system.
- Enterprise Service Bus (ESB) – This platform federates the enterprise bus to the Department. It was implemented in conjunction with the CHIMES system and continues to support the CHIMES Enterprise Architecture (CHIMES – EA).
- SFSL (Shared Fiscal Services Layer) – This system is a shared component of the enterprise services bus and serves as the department’s payment engine. Currently, CHIMES is the only system that uses this enterprise component to process payments, however it will be used by other systems as they are re-configured to use the SFSL services.
- ARMS (Accounts Receivable Management System) – As a sibling to SFSL, ARMS supports receivables business processes for the department. As a pair, SFSL and ARMS are the systems that respectively provide accounts payable and accounts receivable to the department.
- DMS (Document Management System) – This is a document management imaging system built as a set of web services that are part of the DPHHS enterprise architecture. It is primarily used by the Public Assistance Bureau for centralized scanning of documents and forms from clients. Central Database System (CDS) and a work request system have recently begun using DMS web services. Additional systems are planned to use DMS as their backend document imaging system.
- CAPS – This is the case management system for Child Welfare. It is a Mainframe system and is proposed for redesign and replacement in 2015.
- MSAMS (Montana Safety Assessment Management System) – MSAMS is a web front end to part of the CAPS. It allows child welfare field staff to fill out and enter various family and safety assessments on clients. The system then interfaces with CAPS to add the data. Data is also extracted from CAPS to be displayed in a more readable and usable format for the field worker.
- SEARCHS – This is the case management system for Child Support Enforcement. It is a Mainframe system and is proposed for redesign and replacement in 2017.
- Open Scan – This is the document imaging and management system used by Child Support Enforcement to track receipt and disbursement of child support payments. It interfaces with the SEARCHS system and is scheduled for replacement at the same time as SEARCHS.
- MT Access – Montana Access is the Electronic Benefits Transfer (EBT) system for the state. Clients are issued plastic mag-stripe cards which they can use to access their SNAP and TANF benefits at various retailers and ATMs across the state. For example, a SNAP client can purchase groceries at a supermarket using the card. MT Access was scheduled for replacement but JP Morgan, who was the winning bidder, walked away from the contract in January of 2014. The department will be issuing a new RFP in May of 2014.
- CCUBS (Child Care under the Big Sky) – This system supports Montana’s child care program. Primary functions include child care licensing, provider inspection, family eligibility determination for subsidy and payment processes, federal error rates, quality assessment, quality

improvement, and contract management. There is a planning project proposed to perform business process analysis/modeling to redesign the system and incorporate the new system into the Enterprise Architecture.

- AWACS (Agency Wide Accounting System) – AWACS is a collection of functionality at the core of many DPHHS applications systems. AWACS provides a common financial application interface and services for generating payment and journal transaction in SABHRS. This system will gradually be replaced by SFSL.
- TIER – This system is used to manage a selection of electronic health records for the Montana State Hospital. The system is proposed for replacement by a more functional department-wide set of electronic health records systems.
- IMMTRAX (Montana Immunization Tracking System) – This system is used to register and track child immunization records across the state.
- CDS (Central Database System) – This system is used by the Human Resource Development Councils (HRDCs) to enter client services they provide as well as for all aspects of managing the Low Income Energy Assistance Program (LIEAP), Weatherization, Energy Share and Energy Audit Programs. The CDS is comprised of these components:
 - Central Information System (CIS) / Data Warehouse (DWH)
 - Low Income Energy Assistance Program (LIEAP)
 - Energy Share, Energy Audit (EA) and Energy Audit Mobile
 - Homeless Management Information System (HMIS)
 - CDS LIEAP SNAP Web Service
 - Energy Education System (EES)
- MSPiRiT – This is Montana’s implementation of the consortium-based SPIRiT system and is used to manage the Woman, Infant, and Child (WiC) program.
- MiCRS (Management Information and Cost Recovery System) - MiCRS tracks all beds, medication, and services for clients in the departments facilities and bills the various payers like Medicaid, Medicare, private insurance, and/or the client.
- SAMS (Substance Abuse Management System) – This system is for tracking substance abuse treatments and outcomes for Federal reporting and provider payment.
- Statewide Trauma Data System – This is a web-based system used by hospitals to report data to the State about ER visits.
- HiRMS (Health Information and Resource Management System) – This system manages emergency medical services licensing, EMS Service Patient records and data, registration of community AED program, registration of healthcare providers for disaster response, and other hospital information on trauma patients.
- Copia & Harvest – These systems are management systems for the State Public Health Laboratory.
- Moodle – This system is used to manage and provide training videos and coursework to Department staff. This system was initially deployed to train Human and Community Services Division staff on changes in CHiMES due to the Affordable Care Act. It has now been expanded to be used by other areas in the Department including department-wide HR training.
- Microsoft System Center 2012 – This system is comprised of three different components that manage desktop systems, servers, and the service desk ticketing system. This is a COTS product from Microsoft obtained via the Microsoft Enterprise Agreement (EA).
- Microsoft SharePoint 2010 – SharePoint is a COTS product that is used for the department-wide workgroup collaboration portal.
- Citrix NetScaler and Application Server – These systems are used to provide application remote access, remote desktop, and desktop virtualization services.

TSD also provides multiple internal services for the department. Below is a short description of the services provided by each area:

Technology Services Center (TSC)

The TSC provides technical support and resources for over 3,200 department employees and non-employees, professional service providers, and internet users that use or interact with the department's services. Services provided include help desk, web site administration support, mainframe support and mid-tier server operations support for the department. Approximately 3,000 incidents are opened per month at the TSC. It is the goal of the TSC to resolve as many customer incidents as possible during the initial call. The first call resolution rate of the TSC is currently 70%.

Desktop Administration and Management

The department uses Microsoft System Center 2012 Configuration Manager to remotely administer computers, deploy operating systems, software applications, and software updates. SCCM 2012 is used to monitor and remediate computers for compliance settings and inventories hardware and software installed on computers and servers.

Microsoft System Center Service Manger 2012 is used to manage incidents and service requests called into the Technology Services Center by end-users. It provides NCB built-in processes for incident and problem resolution, change control, and asset lifecycle management.

Microsoft System Center 2012 Operations Manager is used to monitor services, devices, and operations for many of the server systems. Operations Manager helps to gain rapid insight into the state of the server environment and the services running across different systems. We are able to monitor system state, server health, and performance as well as alerts generated for availability, performance, configuration, and security situations.

The Network and Security Unit provides security operations services. The Network and Security Unit responds to all access requests and works with the data owner to appropriately grant and rescind access to department systems.

Computer Application System Development and Support

The Application Development and Support Section (ADSS) develops, enhances, and maintains applications that support the department's business functions with a primary focus on business critical applications. This focus includes enterprise applications and databases that provide common business functions across multiple divisions. ADSS supports two separate development technologies, Oracle Forms and Java, both being typically connecting to an Oracle database. Most ADSS applications utilized Oracle Forms. New work is being done with Java. ADSS is actively working on replacing existing Oracle Forms applications.

Computer Application and Database Hosting

The Database and Web Group (DAWG) Section provides Oracle Database Hosting and Web/Application Server Hosting. Servers are either AIX or Linux and are primarily virtualized. They reside in the State of Montana Data Centers in Helena and Miles City. The DAWG purchases, configures and manages database and web/application servers. Database hosting is primarily done in an Oracle environment. Web/Application servers include Oracle Application Server (Weblogic), Tomcat, JBoss, and Apache. Hosting services include production support of online and batch processing, and 7x24 on-call support for applications which require it.

Project Management

The Project Management Bureau (PMB) is the IT Project Management Office (PMO) for the department. The PMO provides centralized and coordinated management of information technology projects. PMB is responsible for ensuring the success of system development projects by staffing them with qualified professionals. Maintenance and operations services are provided for existing large systems.

The PMB identifies, develops and enforces project management methodology, practices, and guidelines. They also act as a centralized clearinghouse for project policies, procedures, templates, and other project tools.

Information Security

The department has developed a NIST based information security program. For more information, see section 13.

IT Procurement and Contract Oversight

All IT procurements go through the division. TSD assists the programs to select the appropriate method of procurement, complete the procurement documents, and obtain the necessary approvals. TSD works with the department's procurement office or the State Procurement Bureau to move the procurement through the appropriate process including RFPs. TSD will facilitate, scribe, and participate in the scoring of RFPs or Contractor Engagement Proposals (CEP). Once an IT service/product is procured, the TSD finalizes the contractual document with the vendor, the program, legal staff and management.

Operational contract management is also maintained in TSD.

Health Information Technology (HIT)

The HIT program administers the state portion of the federal Health Information Electronic Health Records provider incentive program. The program has paid out \$6,256,000 to 262 eligible professionals and \$13,713,000 to 33 eligible hospitals of federal incentive money since December 2011. The HIT program also provides limited consulting services to identify HIT needs within the Montana medical provider community. The HIT program works within the provider community to support implementation of HIT, including Electronic Health Records (EHR), health information exchanges, and connectivity issues related to linking facilities.

8. IT Infrastructure, Staffing and Resources

Infrastructure

The department utilizes both internal and external infrastructure resources to operate its IT systems. There are department owned servers and data storage equipment in the State of Montana Helena Data Center and the Miles City Data Center. The department uses Miles City for backup and disaster recovery. The department has decommissioned the server rooms that it had on the Helena capitol campus.

SITSD provides a large number of hosted services that the department relies on including email, phone service, network connectivity, server hosting, and disk storage. SITSD provides the hosting service for CHIMES and several other main line of business systems for the department including the State Mainframe system. Internally developed and managed department systems tend to be hosted on the Department's server infrastructure.

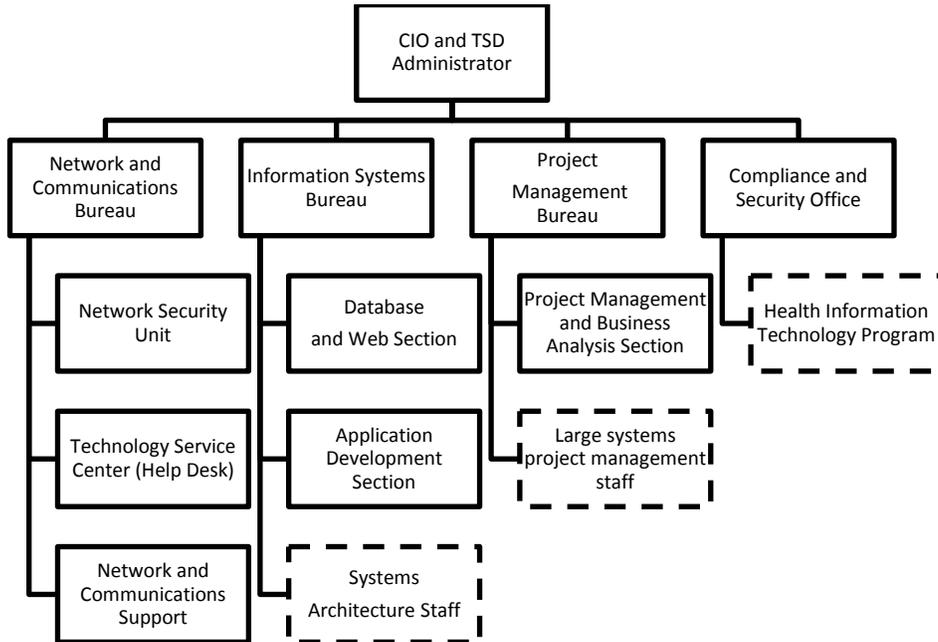
The department uses the SummitNet network provided by SITSD to connect its remote locations. A large number of department office locations have local file servers. However, as good quality, affordable, high-speed network connections become available, those file servers are being decommissioned and services are being provided from the Helena Data Center.

The department does use various external vendor-hosted systems including the Medicaid claims system which is hosted by Xerox and an electronic benefits system that is partially hosted by Northrop Grumman. The department continues to look for opportunities to use cloud services as appropriate. A current project is moving the department's constituent correspondence tracking system from Microsoft Access to a hosted Microsoft CRM Dynamics system.

Staffing

TSD has approximately 69.60 FTE's, including 4.00 HB2 modified FTE's, organized into four functional bureaus. The Network and Communications Bureau (NCB) is responsible for desktop LAN administration, the technology service center (help desk), security operations, and Microsoft Windows based support systems. The Information System Bureau (ISB) is responsible for internal application development, maintenance and operations, database administration, and system administration for the departments Oracle web and database servers. The Project Management Bureau (PMB) is responsible for IT project management, IT systems business analysis, and contractor management and maintenance for the large IT systems. The Compliance and Security Office (CSO) is responsible for security policy and compliance, IT security and system audits, IT contract management, and IT procurement management. The CSO also has the departments Health Information Technology program that promotes and coordinates the application of HIT across the state. The HIT program is also responsible for administrating and distributing HIT incentive payments from the federal government to qualifying medical providers.

Technology Services Division Functional Organization Chart



Vendor Partners and Resources

TSD spends a substantial amount of its budget on contracted vendors that manage, support, and maintain its systems. A large amount of the funds go to several large system integrators such as Deloitte and Northrop Grumman. The department is heavily invested with Microsoft, Oracle, IBM, Dell, Commvault, and Citrix. The department follows state software standards and uses Microsoft's Office products on the desktop. The department has a large investment in Oracle forms and web applications and Oracle databases. Recently the department decided to outsource its hosting of Microsoft SQL databases to SITSD. The department uses Citrix to provide remote desktop applications and virtualize desktops to selected users.

9. IT Risks and Issues

The following table contains the major risks to the department's IT strategy. Major risks meet one of two criteria.

- Risks with a probability of medium or high with an impact of high.
- Risks with a probability of high with an impact of medium or high.

Mitigation strategies are the pro-active actions that the department uses to lessen the probability of the risk occurring and minimizing the impact of the risk.

Primary Risk	Probability	Impact	Mitigation Strategy
Staff retirements	High	Medium	The department will develop a succession planning program that creates a list of staff eligible to retire and forecast an estimated retirement date and replacement plan when possible. Positions/skills rated as critical will have individual plans for skills transfer, replacement, documented procedures, etc. for mitigating the impact.
Security breach	Medium	High	The department has an active security program including, but not limited to, staff training and awareness, data encryption, and security policies.
Resources to adequately manage security planning and risk management	High	High	The department will request additional staffing and resources to manage risk along with prioritizing projects.
Difficulty of hiring qualified technical staff	High	High	Increase pay for positions most affected by this issue.
Lack of funding to retire Mainframe systems	Medium	High	The department will develop a specific care and maintenance plan to reduce the likelihood of being affected by staffing shortages with contractors and SITSD. The department will also revise plans for discontinuing mainframe services.
Inability to secure sufficient funding for some projects	Medium	High	Continue with current operations and plan to renew request at next opportunity. Manage and set expectations for program needs and requirements.
Staff resources stretched thin between multiple Department IT priorities	High	Medium	Use project portfolio management to prioritize projects and requests. Look for additional resources both internally and externally.

10. IT Goals and Objectives

IT Goal 1

Use information technology to support and enhance department program service delivery and increase efficiencies.

Information technology is an essential tool used to support and improve the department's program service delivery. The department will continue to look for ways in which information technology can add value to its business functions. Examples include document management, document imaging, system integration, web-based applications, internet portals, and public/provider access.

Benefits: Increased efficiency and effectiveness in performing the department's business functions.

Objective 1-1: Replace the legacy State Automated Child Welfare Information System which has reached end-of-life.

Objective 1-2: Begin planning activities to replace the legacy System for Enforcement and Recovery of Child Support (SEARCHS), which has reached end-of-life.

Objective 1-3: Begin internal planning activities to actively migrate, replace, or discontinue all other secondary Mainframe systems

Objective 1-4: Begin planning activities to implement electronic health records systems and replace legacy EHR systems for the department's facilities.

Objective 1-5: Begin planning activities to replace and redesign the Child Care Under the Big Sky (CCUBS) system.

Objective 1-6: Implement the Document Management System (DMS) for more systems and support the efforts by SITSD for Enterprise Content Management.

Objective 1-7: Expand the use of eGovernment services for client interactions including reporting of benefits.

Objective 1-8: Extend and enhance the framework of the self-service client portal for the department.

Objective 1-9: Participate in and provide leadership for the implementation of Health Information Technology statewide.

Objective 1-10: Redevelop and move the department external website hosting to SITSD and the DNN platform.

Objective 1-11: Implement and manage secondary IT systems and programs as required by the department.

IT Goal 2

Ensure that information technology resources are efficient, responsive, cost-effective and available when needed.

The department must acquire and maintain the adequate number, type, and quality of IT resources needed to support its systems. IT resources including staff, hardware and software tools, must be maintained at the appropriate levels to adequately provide this support. IT resources must be responsive and provide the required availability and redundancy in a cost-effective manner.

Benefits: Increased efficiency, cost-effectiveness, responsiveness, and availability and redundancy of IT resources to support the department's business functions.

Objective 2-1: Implement an enterprise ITSM governance structure based on the ITIL 2011 framework.

Objective 2-2: Implement IT project portfolio management based on PMBOK framework.

Objective 2-3: Create an Information System Inventory of all department systems that includes information necessary for system life cycle planning and management.

Objective 2-4: Develop division wide workforce training plan for TSD to ensure skills and knowledge remain current and staff are ready for new technologies.

Objective 2-5: Implement increased network bandwidth in various locations across the state.

Objective 2-6: Implement a centralized notification process for major system events.

IT Goal 3

Implement a modern enterprise architecture that supports interoperability and sharing of data and functionality.

Create an Enterprise Architecture plan that leverages State (conceptual Architecture Plan) and federal (Medicaid Information Technology Architecture) guidelines and initiatives that will allow systems to maximize their functionality and increase efficiencies and effectiveness.

Benefits: Increase the value of the department's investment in information technology by defining an Enterprise Architecture that allows systems to maximize their function and data through re-use and sharing.

Objective 3-1: Integrate the Enterprise Service Bus and web services into more Department systems.

Objective 3-2: Enhance the capabilities and system coverage of the Department's business intelligence tool, Pentaho.

Objective 3-3: Implement additional functionality and components of the Enterprise Service Bus including address verification, business process management/orchestration, and geo-location services.

IT Goal 4

Maintain and operate a National Institutes of Standards and Technology (NIST) Based Security Program.

The department's systems and data are a critical and valuable resource that is required for the continued success of program business functions. Access to this data and these systems must be appropriate,

allowing access only for those with a legitimate need-to-know. Data must be available but protected from both deliberate and accidental theft or destruction.

Benefits: Ensuring the confidentiality, integrity and availability of data allows the department to provide services to Montana citizens.

Objective 4-1: Continue to implement NIST based security controls to ensure the security, privacy, availability, and integrity of data and systems.

Objective 4-2: Continue to develop Information Security Policies for all NIST security control families.

Objective 4-3: Implement multi-factor authentication on systems that contain protected, sensitive, private information.

Objective 4-4: Implement encryption at rest for those systems that contain protected sensitive private information.

Objective 4-5: Implement enterprise security information and event management tools on systems as appropriate.

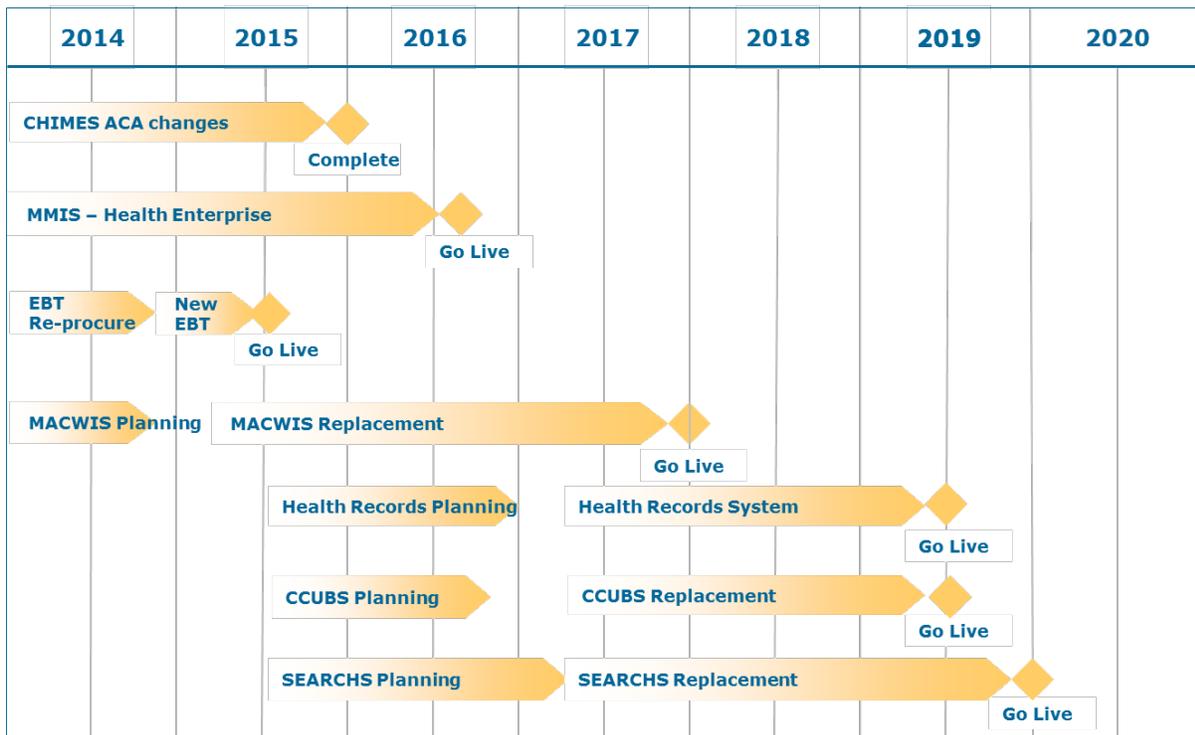
Objective 4-6: Implement a NIST based system authorization and certification process.

11. IT Projects

The department is moving to replace several of its largest systems in a methodical way following system development lifecycle concepts. As systems age they eventually require replacement or significant redesign to meet new business processes or technology. The department desires to manage these systems as a portfolio with a planned cycle of development, operations, and replacement. The portfolio concept also allows the department to manage the resource demands on staff and funding. Another key portfolio concept is doing sufficient advanced planning and analysis of business processes and requirements before a system needs to be replaced. As the date for system replacement or redesign approaches, there has to be a significant effort to do that analysis of requirements and business process and be ready to procure a new system. The department is proposing several planning projects to replace two large systems and to look at implementing electronic health records at its facilities.

One of the requirements of the agency IT plan is to plan for six years. With major IT systems taking two to four years to plan, acquire, and implement, it is important to know what projects are on the horizon. The department is moving to a method of doing a two-year planning cycle before requesting replacement of a major system. A project timeline showing some of the major current and upcoming IT projects for the department is shown below:

Major IT Projects Timeline



Design, Development and Implementation Projects:

Previously funded:

Item	Description
Project name	MMIS Replacement
Project/program purpose and objectives	Montana’s current MMIS system is mainframe CICS/VSAM and utilizes COBOL legacy language that has been in operation since 1985. The system was previously updated in 1997 and certified by CMS in 1998. Due to the old technology and data integrity of our existing system, the department finds it necessary to update the current MMIS with a system using the most current technology in order to increase the accuracy and timeliness of processing claims. This system processes claims for Medicaid, Children’s Health Insurance Plan (CHIP) and Mental Health Services Plan (MHSP). The department has contracted with Xerox to design, develop and implement our new MMIS.
Estimated start date	April 2, 2012
Estimated cost	\$78,426,777
Funding source - 1	General Funds - \$2,163,770
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$68,380,307
Funding source – 4	Long Range IT CP Funds - \$7,882,700
Annual Costs upon completion	

Item	Description
Project name	Eligibility and Enhancement and CHIMES MA/HMK EA Integration
Project/program purpose and objectives	<p>The department needs to enhance its integrated eligibility systems with newer technology and updates to ensure it is ready to support the Affordable Care Act (ACA) and other post ACA changes. The components of this initiative are:</p> <ul style="list-style-type: none"> • Modified Adjusted Gross Income (MAGI) eligibility calculation planning, implementation and support. • Conversion of existing cases to MAGI rule determinations. • Document Management System (DMS) CHIMES integration enhancements. • Self Service Portal (SSP) Phase 1 - Online Federal streamlined basic application and Framework development, implementation, and support. • Self Service Portal (SSP) Phase 2 - Online application expansion and Self-Service mobile application development, implementation, and support. • Development, implementation, and support of an enhancement to CHIMES to allow individual and statewide task based management of caseloads. • CHIMES MA/HMK and CHIMES- EA Migration and NextGen UI development, implementation, and support. This major enhancement to the overall CHIMES system will: <ul style="list-style-type: none"> ○ Integrate CHIMES-MA jump pages into the common data collection screens. ○ Modify the eligibility determination flow to integrate Medicaid/HMK into the processing for SNAP and TANF. ○ Enhance integration of notices and forms between SNAP/TANP/Medicaid HMK. ○ Enhance system integration of Medicaid to reduce eligibility

	<p>calculation performance issues with very large complex family cases.</p> <ul style="list-style-type: none"> ○ Enhance integration of Medicaid reports. ○ Enhance interface integration for automated data updates and automatic benefit re-evaluations for mass updates. <ul style="list-style-type: none"> ● CHIMES “training institute” development and implementation. This will deliver comprehensive on-line and in-person training to a wide variety of users. ● Expansion of Pentaho business intelligence tool to accommodate additional ACA related reporting needs.
Estimated start date	June 20, 2013
Estimated cost	\$33,163,707
Funding source - 1	General Funds - \$0
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$29,761,536
Funding source – 3	Long Range IT CP Funds - \$3,402,171
Annual Costs upon completion	

Item	Description
Project name	Electronic Benefits Transfer (EBT) Outsourcing
Project/program purpose and objectives	The SNAP and TANF programs have been using a state administered EBT for many years. Two independent EBT planning projects supported the state moving to an out-sourced EBT for SNAP, TANF, WIC and possibly other programs in the future. An RFP was posted and the department signed a contract with JP Morgan in October of 2013. In January 2014, JP Morgan informed the department that they would no longer honor the contract. The department is completing a new RFP to select a new vendor to provide EBT services. At this time, the department is expecting a decrease in expenses for EBT however the exact amount will not be known until a new contract is signed.
Estimated start date	May 1, 2014
Estimated cost	(\$858,066)
Funding source - 1	General Fund - (\$390,052)
Funding source - 2	State Special Revenue Funds- \$0
Funding source - 3	Federal Funds (\$468,014)
Funding source – 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	(\$858,066)

Item	Description
Project name	SACWIS Montana Safety Assessment and Centralized Intake (MSAMS)
Project/program purpose and objectives	With the delay of the SACWIS replacement build there are several enhancements planned for the CAPS system. These enhancements are necessary to be compliant with federal regulations. A project (MSAMS) to allow for field input of critical forms and subsequent integration with CAPS will be part of these enhancements.
Estimated start date	August 1, 2012

Estimated cost	\$1,973,466
Funding source - 1	General Funds - \$334,926
Funding source - 2	State Special Revenue Funds- \$0
Funding source - 3	Federal Funds - \$891,040
Funding source - 4	Long Range IT CP Funds - \$747,500
Annual Costs upon completion	\$394,693

Item	Description
Project name	MACWIS Planning
Project/program purpose and objectives	The Montana Automated Child Welfare Information System (MACWIS) project will replace Child and Adult Protective Services System (CAPS), the State's current SACWIS application. CAPS is a mainframe-based system used in the monitoring of foster care cases, adoption cases, provider contracts and licensing, financial accounting, payments for services to providers and reporting. In the face of ever growing federal changes to Child and Adult Protective Services, increased requirements for safeguarding security and confidentiality, and aging technology, it is no longer cost-effective to attempt to meet future business needs with CAPS enhancements.
Estimated start date	October 1, 2013
Estimated cost	\$697,062
Funding source - 1	General Funds - \$348,531
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$348,531
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$0

Item	Description
Project name	Budget Report Management System
Project/program purpose and objectives	The Budget Status Report is designed to give DPHHS management a summary of the status of both the Department's budget and appropriations. The integration of additional functionality will enable DPHHS to have a single reporting utility to enter budget information in addition to provide projections with automated data imports.
Estimated start date	June 1, 2012
Estimated cost	\$501,180
Funding source - 1	General Funds - \$217,430
Funding source - 2	State Special Revenue Funds - \$22,769
Funding source - 3	Federal Funds - \$260,981
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$100,236

New funding requests:

Item	Description
Project name	MACWIS System Replacement - Long Range Information Technology (LRIT)
Project/program purpose and objectives	The Child and Adult Protective Services (CAPS) system is a legacy system that is over 20 years old and resides on the state's mainframe. An updated system will enhance the Department's ability to manage child protective, foster care and subsidized adoption cases; produce more accurate and efficient federal reporting; and will contribute to the overall Department goal of providing accurate and timely assistance to Montanans.
Estimated start date	July 1, 2015
Estimated cost	\$41,225,690
Funding source - 1	General Funds - \$0
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$20,612,845
Funding source - 4	Long Range IT CP Funds - \$20,612,845
Annual Costs upon completion	

Item	Description
Project name	Electronic Health Records (EHR) for Department Facilities Planning - LRIT
Project/program purpose and objectives	<p>This request seeks funds for the purpose of performing the planning, request for proposal, feasibility study, business processing analysis, and alternative analysis process for the implementation of certified Electronic Health Records (EHR) for the Department Facilities. The Department is subject to the federal electronic health care information requirements. In order to come into conformance with the necessary standards and to realize substantive improvements in the provision of health care services the Department will obtain credible assessments of the EHR information system needs for the services delivered through the departments facilities.</p> <p>This request also includes the analysis of replacing the specialized accounts payable and accounts receivable system for facilities that bills various payers including private insurance, Medicaid, and Medicare.</p>
Estimated start date	November 1, 2015
Estimated cost	\$1,400,000
Funding source - 1	General Funds - \$0
Funding source - 2	State Special Revenue Funds - \$182,000
Funding source - 3	Federal Funds - \$294,000
Funding source - 4	Long Range IT CP Funds - \$924,000
Annual Costs upon completion	

Item	Description
Project name	SEARCHS Planning LRIT
Project/program purpose and objectives	This request seeks funding to perform the planning, request for proposal, feasibility study, alternative analysis processes, and business processing analysis and modeling for the replacement of the System for the Enforcement and Recovery of Child Support (SEARCHS). SEARCHS is a legacy system that is over twenty years old. This system is required by federal law, under the Child Support Enforcement Program as authorized and defined by statute, Title IV-D of the Social Security Act (Title 42, Chapter 7, Subchapter IV, Part D) to provide automated financial management of child support collections, absent parent location, paternity establishment and order modifications.
Estimated start date	January 1, 2016
Estimated cost	\$2,991,254
Funding source - 1	General Funds - \$0
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$1,974,228
Funding source - 4	Long Range IT CP Funds - \$1,017,026
Annual Costs upon completion	\$0

Item	Description
Project name	CCUBS Planning LRIT
Project/program purpose and objectives	This request seeks funding to perform the planning, request for proposal, feasibility study, and alternative analysis processes, and business processing analysis and modeling for the replacement of the Child Care Under the Big Sky (CCUBS) system. CCUBS supports Montana's childcare program. Primary functions include child care licensing, provider inspection, family eligibility determination for subsidy and payment processes, federal error rates, quality assessment, quality improvement, and contract management This system is on outdated Oracle Forms and Reports and needs to be redesigned to be maintainable, take advantage of new technology, and to integrate with the department's enterprise services.
Estimated start date	November 1, 2015
Estimated cost	\$2,000,000
Funding source - 1	General Funds - \$
Funding source - 2	State Special Revenue Funds - \$
Funding source - 3	Federal Funds - \$2,000,000
Funding source - 4	Long Range IT CP Funds - \$
Annual Costs upon completion	\$0

System Maintenance and Operations

Previously funded:

Item	Description
Project name	Vocational Rehabilitation Case Management Maintenance and Operations
Project/program purpose and objectives	The Disability Transitions Program (DTP) required a new and modern vocational rehabilitation case management system to replace the current legacy system, currently maintained as a sub-system of AWACS. DTP required a modern web-based system that is ADA compliant and designed for the efficient management of service-based assistance cases from initial referral to closure. The system provides remote and mobile access, configurability, and be interoperable with the department and state enterprise systems.
Estimated start date	January 1, 2013
Estimated cost	\$1,475,500
Funding source - 1	General Funds - \$314,281.50
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$1,161,218.50
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$295,100

Item	Description
Project name	CHIMES-TANF Maintenance and Operations
Project/program purpose and objectives	The Temporary Assistance for Needy Families (TANF) eligibility system project replaced the TANF component of The Economic Assistance Management system (TEAMS). TEAMS was a mainframe-based system previously used in the eligibility determination, benefit distribution and program administration for the Supplemental Nutrition Assistance Program (SNAP) and TANF programs. The replacement system went live November 2012. Enhancements and maintenance will be managed by the TSD through a contract with an outside vendor
Estimated start date	NA
Estimated cost	\$1,858,501
Funding source - 1	General Funds - \$873, 495
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$985,006
Funding source - 4	Long Range IT CP Funds \$0
Annual Costs upon completion	\$1,858,501

Item	Description
Project name	CHIMES-SNAP Maintenance and Operations
Project/program purpose and objectives	The SNAP eligibility system project replaced the SNAP (previously food stamps) component of The Economic Assistance Management system (TEAMS).

	TEAMS was a mainframe-based system previously used in the eligibility determination, benefit distribution and program administration for the SNAP and TANF programs. The replacement system went live November 2012. Enhancements and maintenance will be managed by the TSD through a contract with an outside vendor
Estimated start date	NA
Estimated cost	\$1,833,572
Funding source - 1	General Funds - \$916,786
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds – 916,786
Annual Costs upon completion	\$1,833,572

Item	Description
Project name	CHIMES-Medicaid/HMK Maintenance and Operations
Project/program purpose and objectives	HMK requirements and functionality were integrated with the CHIMES-Medicaid system in 2011. Enhancements and maintenance will be managed by the TSD through a contract with an outside vendor.
Estimated start date	NA
Estimated cost	\$3,611,692
Funding source - 1	General Funds - \$971,907
Funding source - 2	State Special Revenue Funds - \$190,697
Funding source - 3	Federal Funds - \$2,449,088
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$3,611,692

Item	Description
Project name	Legacy Medicaid Management Information Systems (MMIS) Fiscal Agent Contract
Project/program purpose and objectives	The legacy MMIS system is an integrated group of procedures and computer processing operations (subsystems) developed at the general design level to meet principal objectives for the mechanized claims processing and information retrieval system as required in 45 CFR 250.90. For Title XIX purposes, "systems mechanization" and "mechanized claims processing and information retrieval systems" is identified in section 1903(a)(3) of the Act and defined in regulation at 42 CFR 433.111. The objectives of this system and its enhancements include the Title XIX program control and administrative costs; service to recipients, providers and inquiries; operations of claims control and computer capabilities; and management reporting for planning and control. The department contracts with Xerox to maintain and update our legacy MMIS system and run our fiscal agent operations.
Estimated start date	NA
Estimated cost	\$8,349,131
Funding source - 1	General Funds - \$2,371,269
Funding source - 2	State Special Revenue Funds - \$12,288
Funding source - 3	Federal Funds - \$5,965,574

Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$8,349,131

Item	Description
Project name	The System for Enforcement and Recovery of Child Support (SEARCHS) Maintenance and Operations
Project/program purpose and objectives	The system for Enforcement and Recovery of Child Support (SEARCHS), the State's current Child Support System, is used in the enforcement and recovery of child support, financial accounting, payments, and reporting. Enhancements and maintenance of the SEARCHS system is managed by the TSD through a contract with an outside vendor.
Estimated start date	NA
Estimated cost	\$2,442,462
Funding source - 1	General Funds - \$586,191
Funding source - 2	State Special Revenue Funds - \$244,246
Funding source - 3	Federal Funds - \$1,612,025
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$2,442,462

Item	Description
Project name	Central Database System (CDS)/Homeless Management Information System (HMIS) Maintenance and Operations
Project/program purpose and objectives	The Central Database System (CDS) is used in support of the Human Resource Development Councils in the delivery of services to low-income residents of Montana in the critical areas of LIEAP heat assistance, Weatherization, Energy Share, Community Service Block grant programs and many other programs. Montana service providers such as Emergency Shelters, Transitional Housing, and Permanent Supportive Housing use the Homeless Management Information System (HMIS) to track client information and report progress.
Estimated start date	NA
Estimated cost	\$1,100,831
Funding source - 1	General Funds - \$0
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$1,100,831
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$1,100,831

Item	Description
Project name	CAPS/Operation Protect Montana (OPM) Maintenance and Operations
Project/program purpose and objectives	The Child and Adult Protective Services (CAPS) system supports case management for child protective services, services to juvenile probation and parole, payments, and licensing activities. It is used to monitor, track and make provider and beneficiary payments for Child and Adult protective services, including foster care, subsidized adoption, and elder abuse. Operation Protect Montana (OPM) supports case management for Senior Long Term Care Division (SLTC)/Adult Protective Services (APS). Enhancements and maintenance of the CAPS and OPM systems is managed by the TSD through a contract with an outside provider.
Estimated start date	N/A
Estimated cost	\$2,353,807
Funding source - 1	General Funds - \$1,533,537
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$820,270
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$2,353,807

Item	Description
Project name	Child Care Under the Big Sky (CCUBS) Maintenance and Operations
Project/program purpose and objectives	Child Care Under the Big Sky (CCUBS) supports Montana's childcare program. Primary functions include childcare licensing, provider inspection, family eligibility determination for subsidy & payment processes, and quality improvement program contract management. CCUBS interfaces with TEAMS, CAPS, CDS and the MSU Practitioner Registry. Enhancements and maintenance of the CCUBS system is managed by TSD through a contract with an outside provider.
Estimated start date	N/A
Estimated cost	\$1,490,219
Funding source - 1	General Funds - \$0
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$1,490,219
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$1,490,219

Item	Description
Project name	Montana Access (EBT) Maintenance and Operations
Project/program purpose and objectives	Electronic Benefits Transfer (EBT), aka Montana Access, is used to electronically disburse SNAP benefits and Temporary Assistance for Needy Families (TANF) cash payments. It is also used for electronic reimbursement of retailers and financial institutions. Enhancements and maintenance of the EBT system is managed by TSD through a contract with an outside provider.
Estimated start date	N/A

Estimated cost	\$2,139,109
Funding source - 1	General Funds - \$972,225
Funding source - 2	State Special Revenue Funds - \$0
Funding source - 3	Federal Funds - \$1,166,884
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$2,139,109

Item	Description
Project name	CHIMES EA (Enterprise Architecture) Shared Fiscal Services Layer Maintenance and Operations
Project/program purpose and objectives	SFSL transformed fiscal business processes into a library of shared fiscal services. These shared services replaced and centralized the functionality housed in separate systems. CHIMES-TANF and CHIMES-SNAP uses the shared fiscal services layer (SFSL) for all fiscal processing and fiscal-related interfaces. Other systems will use the SFSL in the future, as they are enhanced or replaced. SFSL went live November 2012.
Estimated start date	N/A
Estimated cost	\$904,468
Funding source - 1	General Funds - \$275,556
Funding source - 2	State Special Revenue Funds - \$54,670
Funding source - 3	Federal Funds - \$574,242
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$904,468

System Maintenance and Operations

New funding requests:

Item	Description
Project name	Systems Maintenance and Operations Contracts Price Adjustments
Project/program purpose and objectives	This decision package requests funding for maintenance and operations contract increases due to anticipated cost adjustments for contracted IT services that resulted from contract extension. The systems include SEARCHS and CAPS legacy systems, CHIMES SNAP, CHIMES TANF, CHIMES MA/HMK, and CCUBS.
Estimated start date	July 1, 2016
Estimated cost	\$885,079
Funding source - 1	General Funds - \$320,487
Funding source - 2	State Special Revenue Funds - \$23,632
Funding source - 3	Federal Funds - \$540,960
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$576,180

Item	Description
Project name	CHIMES MA/HMK OTO made base
Project/program purpose and objectives	During the 2013 legislative session, the HHS subcommittee approved funding for maintenance and operations contracted services increases for CHIMES Medicaid/HMK and TEAMS as a onetime only appropriation with the intent that the department validate the ongoing need for these contracted services. This resulted in need to request that base year expenditures of \$1,666,325 for the ongoing maintenance and operations of the CHIMES Medicaid/HMK system. This request seeks \$886,500 for CHIMES TANF system and \$886,500 for the CHIMES SNAP system be approved for continuation through a decision package.
Estimated start date	July 1, 2016
Estimated cost	\$6,878,650
Funding source - 1	General Funds - \$659,904
Funding source - 2	State Special Revenue Funds - \$31,578
Funding source - 3	Federal Funds - \$6,187,168
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$3,439,325

Hardware and Software

New funding requests:

Item	Description
Project name	Facilities Systems and IT Infrastructure
Project/program purpose and objectives	This request seeks Long Range IT funding for necessary systems and IT infrastructure upgrades at the department facilities – Montana Mental Health Nursing Care Center, Montana Developmental Center, Montana State Hospital, Montana State Veterans Home, and the Eastern Montana Veterans Home. This request includes increased network capacity, Telemed capabilities, large capacity document scanner systems, Wi-Fi, telephony services, and Nurse Call system.
Estimated start date	July 1, 2016
Estimated cost	\$970,700
Funding source – 1	General Funds - \$0
Funding source – 2	State Special Revenue Funds - \$0
Funding source – 3	Federal Funds - \$48,535
Funding source - 4	Long Range IT CP Funds - \$922,165
Annual Costs upon completion	\$194,140

Item	Description
Project name	Federal Security Audit Compliance
Project/program purpose and objectives	This request seeks funding to implement additional multi-factor authentication, data encryption at rest, and Security Information and Event Management (SIEM) software into applications to comply with federal security regulations.
Estimated start date	July 1, 2016
Estimated cost	\$459,000
Funding source - 1	General Funds - \$74,182
Funding source - 2	State Special Revenue Funds - \$5,967
Funding source - 3	Federal Funds - \$378,851
Funding source - 4	Long Range IT CP Funds - \$0
Annual Costs upon completion	\$76,500

12. Security and Business Continuity Programs

Security Program Description:

The department has implemented an information security management program compliant with §2-15-114, MCA and State Information Technology Systems Division *Information Security Programs* policy with adoption of the National Institute of Standards and Technology (NIST) Special Publication 800 series as guides for establishing appropriate security procedures. The program is in alignment with the State of Information Technology Service's direction for an enterprise approach to protect sensitive and critical information being housed and shared on State and/or external/commercial information assets or systems.

As described in NIST SP 800-39, the department has developed and adopted the Information Risk Management Strategy to guide the department through information security lifecycle architecture with application of risk management. This structure provides a programmatic approach to reducing the level of risk to an acceptable level, while ensuring legal and regulatory mandates are met in accordance with MCA §2-15-114.

The department's information security management program is challenged with limited resources; work force and funding. While alternatives are reviewed and mitigation efforts are implemented the level of acceptable risk is constantly challenged by the ever-changing technology and associated risks from growing attacks and social structure changes.

The information security management program consists of the following components:

- Defined Roles and Responsibilities
- Security Awareness and Training Program
- Security Planning
- Risk Management
- Authorization and Certification

Roles and Responsibilities

The department has created a roles and responsibilities document that defines the security roles throughout the agency. The purpose of this document is to define roles and responsibilities of key participants involved in the risk management process. This roles and responsibilities document complies with NIST SP 800-39. The department further identifies system specific roles within the system specific Security Plan.

Security Awareness and Training Program

The department is in the process of creating a NIST compliant Security Awareness and Training Program. NIST SP 800-50 provides guidance for the department. Security awareness and training is focused on the department's entire user population. The awareness and training program is crucial in that it is the vehicle for communicating security requirements. The department continues to improve, develop and implement the awareness and training program. Most training is conducted during the month of October, which is cyber security month.

The program includes:

- Cyber security month training – posters, emails, newsletters, computer pop-ups, etc.
- Newsletters – SITSD provides newsletters throughout the year. The department has developed and implemented a process to consistently utilize and disseminate these newsletters.
- New Employee Orientation – information security is part of new employee orientation.

- Securing the Human – The department is participating in this online training mandated by the Governor.

One of the primary information security focuses of the next biennium is to fully implement an awareness and training program. Challenges faced include developing a tracking tool for annual training and determining how to get security awareness and training to employees who have limited access to computers (i.e., direct care staff in institutions).

Security Planning

Using NIST SP 800-18 as a guideline the department has established an Enterprise System Security Plan for securing all systems. The Enterprise Security Plan provides an overview of the security requirements for the systems and describes the controls planned for meeting those requirements. This plan also defines the responsibilities and expected behavior of all individuals who access systems. The department is working on a prioritized list of systems for completion of system security plans. All new systems will have an individualized security.

The objective of system security planning is to improve protection of information system resources. The purpose of a system security plan is to provide an overview of the security requirements of the system and describe the controls in place or planned for meeting those requirements. This plan delineates responsibilities and expected behavior of all individuals who access the system. The plan documents the structured process of planning adequate, cost-effective security protection for a system. The plan also establishes and documents the security controls and forms the basis for the authorization. The department uses NIST SP 800-53 and NIST SP 800-53A to select appropriate privacy and security controls for its systems. One of the focuses over the next biennium is to develop or renew policies for all NIST security families.

Risk Management

The department utilizes NIST SP 800-39, NIST SP 800-37 and NIST SP 800-30 as guidelines to assist in performing risk management. Risk management is the process of identifying risk, assessing risk and taking steps to reduce risk to an acceptable level. The objective of performing risk management is to enable the department to accomplish its mission by:

- Better securing the IT systems that store, process, or transmit department information;
- Enabling management to make well-informed risk management decisions to justify the expenditures that are part of an IT budget; and
- Assisting the management in authorizing (or accrediting) the IT systems on the basis of the supporting documentation resulting from the performance of risk management.

Risk assessment is used to determine the extent of the potential threat and the risk associated with an IT system throughout its System Development Life Cycle. This process helps to identify appropriate controls for reducing or eliminating risk during the risk mitigation process.

Risk is a function of the likelihood of a given threat-source is exploiting a particular potential vulnerability, and the resulting impact of that adverse event. The department's security team assists and facilitates the risk assessment process for the department but the ultimate responsibility for the assessment lies with the data owners of each system. The department's risk assessment process fits within available resources and meets federal requirements and the department's desire to secure resources.

The first step of the risk assessment process is to complete a System Characterization and Prioritization tool. This tool is intended to assist security staff in determining if further risk assessment is necessary on the system. It allows the department to determine the degree to which an information security program has been implemented for the system. The department Information Security Officer (ISO) or Chief

Information Officer (CIO) use this form to identify general areas of concern and determine what level of risk assessment should be performed on the system.

Based upon the results of the System Characterization and Prioritization tool one of the following further actions will occur:

- No further action required: Systems with an overall security rating of low there is no further action is required.
- Perform Basic Risk Assessment Checklist: This simple checklist provides a high-level view of standard security practices. General instructions for its use are included in the Checklist's Introduction section. This basic risk assessment tool is used to assess systems with an overall security rating of moderate.
- Perform Advanced Risk Assessment: The Facilitated Risk Analysis Assessment Process (FRAAP) is a process for ensuring that threats are identified, examined and documented. The IT Security Team will facilitate the FRAAP process. In most instances, the department will conduct a modified FRAAP that utilizes a written threat and vulnerability assessment. A full, in person FRAAP is time consuming for all stakeholders and will only be used if necessary. This advanced risk assessment tool is used to assess with overall security rating of high.

Upon completion of each risk assessment the security team will develop two reports for the department.

- Management Summary Report
 - This report will detail all findings for the Data Owner. The report will assist the Data Owner in determining the criticality of each finding. This report is confidential and only personnel with a need to know are given access to this report.
- Executive Summary Report
 - This report is a high-level summary of the full risk assessment report. It gives enough detail for management to understand the level of vulnerability a system may face. This report is not considered confidential and can be viewed by all interested parties.

The data owner, system owner and department management will respond to any identified risk. Risk response identifies, evaluates, decides on and implements appropriate courses of action to accept, avoid, mitigate, share or transfer risk to organizational operations and assets, individuals, and other organizations resulting from the operation and use of information systems.

The department is developing a prioritized list of systems needing risk assessment. The department does not have the staff necessary to quickly conduct risk assessments on all systems. This prioritized list will help the department determine which risk assessments to complete.

Authorization/Certification

Based on all the information from the security planning and risk management, the authorizing official must make decisions on whether or not the information systems are initially authorized to operate within the designated environments of operation or continue to receive authorization to operate on an ongoing basis. The risk management process, with guidance from the security team and the various architectural considerations supporting the mission/business processes, informs the ongoing risk-based decisions.

Affordable Care Act (ACA) Security Reporting

The department was required to submit a System Security Plan (SSP) before implementing the changes required by ACA. From this SSP a Plan of Action and Milestones (POAM) was developed. The POAM is required to be updated and reported to CMS quarterly. The SSP is updated and submitted to CMS on a regular basis but they have not yet determined if that will be annually or every three years.

Internal Revenue Services (IRS) Safeguard Reporting

The IRS revised their Publication 1075, which directs safeguarding requirements for any system receiving IRS data. Under these revised guidelines, we will be required to submit annual reports (previously we had to do one annual report and one report every six years). Additionally, every three years the IRS does an in-person safeguard assessment. That assessment results in a Corrective Action Plan (CAP) which must be updated and submitted to the IRS on a semi-annual basis.

Federal Agreements

The department has several data and security agreements with different federal agencies. These agreements must be updated and re-signed on either an annual or a longer basis, depending on the agreements terms.

Continuity of Operations (COOP) Capability Program Description:

The department has been working with the Department of Administration for the past few years in developing, maintaining, and implementing its continuity of operations plans. COOP provides the plans and structure to facilitate response and recovery capabilities to ensure the continued performance of the State Essential Functions. In order to facilitate the development of the COOP process the State has purchased the Living Disaster Recovery Planning System (LDRPS). The department has been entering information into the system and maintaining it since the program was implemented. The COOP process has been broken down into two phases. Phase I was the identification of the business continuity plans, business service process, and delegations of authority. Phase I data entry has been completed, and is awaiting review and signature from the approving authorities. Phase II is the identification of tasks, teams, locations, essential records and reconstitution. Phase II is currently being worked on and has an estimated completion date of December 2015. This program is not a standalone process, in that the information which is identified and recorded under this structure can and often exists in the Records Management Program and associates with Information Security Management Program requirements.

In addition to completing the COOP requirements there are also several other areas of emergency preparedness that are being worked on simultaneously. These other areas involve the development of business processes or activity plans such as Emergency Action Plans (EAP), Information System Contingency Plan (ISCP), Communications Plans, Incident Management Plans, and more.

13. Planned IT Expenditures

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
IT personal services	\$ 6,128,242	\$ 6,096,797	\$ 6,328,260	\$ 6,831,594	\$ 6,870,250	\$ 6,916,383
IT operating expenses	\$ 11,700,876	\$ 12,385,485	\$ 12,628,496	\$ 12,768,674	\$ 12,876,964	\$ 12,986,968
IT initiatives	\$ 38,731,504	\$ 56,826,506	\$ 63,488,769	\$ 44,712,857	\$ 54,982,702	\$ 60,442,472
Other						
Total	\$ 56,560,622	\$ 75,308,788	\$ 82,445,524	\$ 64,313,125	\$ 74,729,916	\$ 80,345,823

14. Administrative Information

IT strategy, plan owner, and IT contact:

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15. Acronyms and Definitions

<u>Acronym</u>	<u>Definition</u>
ADSS	Application Development and Support Section
APD	Advance Planning Document
APDU	Annual Advanced Planning Document Updates
AWACS	Agency Wide Accounting System
CAPS	Child and Adult Protective Services
CCUBS	Child Care Under The Big Sky
CDS	Central Database System
CEP	Contractor Engagement Proposals
CHIMES	Current Medicaid, SNAP and TANF eligibility system
CHIP	Children's Health Insurance Plan
CIO	Chief Information Officer
CIS	Central Information System
DMS	Centers for Medicaid and Medicare Services
COOP	Continuity of Operations Capability Program
COTS	Commercial Off-The-Shelf
CSO	Compliance and Security Office
DAWG	Database and Web Group
DMS	Document Management System
DTP	Disability Transitions Program
DWH	Data Warehouse
EA	Enterprise Architecture
EAP	Emergency Action Plan
EBT	Electronic Benefits Transfer
EES	Energy Education System
ESB	Enterprise Service Bus
FFP	Federal Financial Participation
FRAAP	Facilitated Risk Analysis Assessment Process
GIS	Geographical Information System
EHR	Electronic Health Records
HIRMS	Health Information and Resource Management System
HIT	Health Information Technology
HMIS	Homeless Management Information System
HMK	Healthy Montana Kids
IAPD	Implementation Advanced Planning Documents
IMMTRAX	Montana Immunization Tracking System
ISB	Information Systems Bureau
ISCP	Information System Contingency Plan
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITSM	Information Technology Service Management
JIRA	Commercial Software Product for Tracking Bugs and Issues

LIEAP	Low Income Energy Assistance Program
LRIT	Long Range Information Technology
MA	Medicaid
MACWIS	Montana Automated Child Welfare Information System
MHSP	Mental Health Services Plan
MICRS	Management Information and Cost Recovery System
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
MSAMS	Montana Safety Assessment Management System
MSPIRIT	Woman, Infant and Child Management Program
NCB	Network and Communications Bureau
NIST	National Institute of Standards and Technology
OPM	Operation Protect Montana
PAPD	Planning Advanced Planning Documents
PMB	Project Management Bureau
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project Management Office
POAM	Plan of Action and Milestones
RFP	Request for Proposal
SAMS	Substance Abuse Management System
SEARCHS	System for Enforcement and Recovery of Child Support
SIEM	Security Information and Event Management
SFSL	Shared Fiscal Services Layer
SITSD	State Information Technology Services Division
SNAP	Supplemental Nutrition Assistance Program
SOA	Service-Oriented Architecture
SSP	System Security Plan
TANF	Temporary Assistance for Needy Families
TEAMS	Former Medicaid, SNAP and TANF Eligibility System
TSC	Technology Services Center
TSD	Technology Services Division
VOIP	Voice Over Internet Protocol