Montana Legislative Branch

Information Technology Plan

October 2014

2017 Biennium

A Report to the 64th Legislature from the Legislative Branch Information Technology Planning Council

LEGISLATIVE BRANCH
INFORMATION TECHNOLOGY PLANNING COUNCIL
2014-2015

Legislative participation in the Information Technology Planning Council is required by statute, 5-11-402, MCA.

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Introduction

The Legislative Branch Information Technology (IT) Planning Council is pleased to present its 2017 Biennium IT Plan for managing the Legislative Branch's substantial investment in IT. This plan will provide direction in using IT resources to ensure the maximum return on this investment while best meeting the business needs of the Legislative Branch.

The sections that follow present the status of IT planning in the Legislative Branch, including the business of the Legislative Branch, the current state of the branch's IT operations, the branch's IT roadmap, and the governance and maintenance of the IT plan. In context of the roadmap, the plan presents a proposed branch IT budget for the 2017 biennium, including the planned project portfolio and operational costs. Questions about the branch's IT plan may be directed to:

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Executive Summary

The Legislative Branch Information Technology Plan presents an analysis, assessment, and plan for the use of information technology in the performance of the core mission of exercising the legislative powers of the government of the State of Montana. In general, the legislative powers include making laws, levying taxes, allocating monies, and providing oversight.

The information technology resources of the branch are planned and governed by the Information Technology Planning Council (ITPC) and deployed and managed by the Office of Legislative Information Technology (OLIT). The plan is based on an analysis that assesses the branch's information technology (IT) in terms of its Strengths, Weaknesses, Opportunities, and Threats (SWOT).

The branch's strategic IT vision sets a direction for the branch's use of IT and a future state to which we aspire. In summary, the vision calls for tight alignment and integration of the business conducted by the branch and its information technology capabilities while maintaining a modern and sound environment through a mature governance process and business-based guiding principles.

The 2017 branch IT plan leverages our strengths, exploits opportunities, addresses weaknesses, and protects against or eliminates threats. We do this through the purposeful application of resources organized into programs and projects while running the day-to-day IT operations. Presented in this plan are the projects proposed for the upcoming biennium and the investment associated with these projects, including:

- Session Systems Replacement (SSR);
- Website Redesign/Web Development Capability;
- Hardware/Software Replacement;
- Security Audit; and
- Document Management.

The total proposed budget including projects and operations is $2,707,893. This represents a 4% increase over the last biennium IT budget. Excluding the SSR special budget allocation, the branch will spend 38% of allocated budget on new investment and 62% on operations. We strive to maintain a consistent allocation to new investment as a percentage of total budget in upcoming years as we make operations more efficient. Over the course of the last biennium, we have experienced significant technology changes with the conversion of our network topology. This trend will continue over the next biennium as we implement new technology to replace our web development and session systems.

An illustration of the IT plan's projects and initiatives is depicted in the IT roadmap.

Overview – Information Technology in the Legislative Branch

Purpose of the Information Technology Plan

Statutory Planning Requirements

In 1989, the Montana Legislature adopted a comprehensive set of laws governing IT planning in the Legislative Branch (Title 5, chapter 11, part 4, Montana Code Annotated (MCA)). The purpose of these statutes is "to establish a mechanism for information technology planning encompassing broad policy needs, long-term direction for information systems use, and the effective implementation of a detailed plan for the legislative branch" (5-11-401, MCA). The law further provides that the purpose of the information technology plan is:

- to ensure coordination of information system decisions so that the overall effectiveness of the Senate, House of Representatives, and legislative agencies may be improved; and
- to enhance coordination of Legislative Branch systems with Executive Branch systems whenever possible.

The Legislature created the Legislative Branch Information Technology Planning Council to develop and maintain a branch information technology plan. Members of the Planning Council are:

- the Secretary of the Senate;
- another representative of the Senate designated by the President;
- the Chief Clerk of the House of Representatives;
- another representative of the House designated by the Speaker;
- the Executive Director of the Legislative Services Division, who chairs the Planning Council;
- the Legislative Auditor;
- the Legislative Fiscal Analyst;
- the Consumer Counsel;
- the Chief Information Officer of the Legislative Branch; and
- a person designated by the Director of the Department of Administration to represent the IT responsibilities of the department, who serves as a nonvoting member of the Planning Council.

In developing and maintaining the Legislative Branch Information Technology Plan, the Planning Council is required to:

- approve and validate the branch enterprise architecture program that includes principles to maintain alignment with evolving business and technology needs;
- continually review analyses of existing and alternate information systems to identify candidates for automation, modernization, enhancement, improvement, or integration with new applications to support evolving Legislative Branch needs or functions;
- include in the plan a description of functions and services in the Legislative Branch and its agencies that would benefit from the application or improvement of information technology to provide better service to members of the Legislature, legislative agencies, and the public;
- prioritize information technology initiatives, taking into consideration expected effectiveness, probable cost, and alignment with the enterprise architecture principles;
- adopt technology standards within the enterprise architecture program that are appropriate to the business needs and technical environment of the Legislative Branch and its agencies; and
- consider information technology support of security, disaster recovery, and continuity of government.

By law, the Executive Director of the Legislative Services Division shall provide technical staff support to the Legislative Branch Information Technology Planning Council. Statutory duties related to this support role are:

- developing and maintaining an enterprise architecture program;
- developing analyses of existing and alternate systems to identify candidates for automation, modernization, or enhancement;
- assisting in assessing benefits and costs of alternate solutions;
- apprising the planning council of developments and trends in the technology industry;
- maintaining a liaison with and informing the Planning Council of plans and directions within the Executive Branch;
- selecting and purchasing supplies and equipment that support the enterprise architecture principles adopted by the Planning Council;
- providing information and advice regarding information technology support of security, disaster recovery, and continuity of government; and
- providing other assistance as may be requested.

Furthermore, the Executive Director shall encourage participation of appropriate personnel of the Senate, the House of Representatives, and other legislative entities in the provision of technical support.

After developing the Legislative Branch Information Technology Plan, the Planning Council must present the plan to the Legislative Council for adoption. Also, in order to fulfill the requirements of 2-17-518, MCA, the Legislative Council shall adopt enterprise principles and technical standards within an enterprise architecture program as a part of the Legislative Branch IT Plan, as provided for in 5-11-405, MCA, that will fulfill the intent of adequate rules for use of information technology resources for the consolidated Legislative Branch, as provided for in 5-2-504, MCA.

The Business of the Legislative Branch

This section describes the organization of the Legislative Branch. It also discusses the functions and roles played by IT in the branch's business.

Organization

The Montana Legislature is one of three branches of state government created by the Montana Constitution. The people of Montana express their will directly through the Legislative Branch, which enacts laws, levies taxes, and appropriates revenue received from those taxes to various agencies of government for public purposes.

The structure and function of the Legislative Branch are prescribed by constitutional law, statutes, and legislative rules. The branch consists of entities as provided in 5-2-504, MCA. The principal entities of the branch are the Senate and House of Representatives (which together compose the Legislature), the Legislative Services Division (LSD), the Legislative Fiscal Division (LFD), and the Legislative Audit Division (LAD). The mission, goals, and objectives for the Legislative Branch can be found on our website at www.leg.mt.gov.

Functions

The Legislative Branch's responsibilities include areas such as lawmaking, appropriation, taxation, oversight of the Executive Branch, and representation of local interests. The primary function of the Legislature is lawmaking, which consists of the drafting, consideration, voting on, and passage of bills. Other responsibilities of the Legislature that support its primary function include research, fiscal analysis, legislation and policy development, information distribution, oversight, and business and administrative services.

The Role and Purpose of Information Technology in the Legislative Branch Business

The Legislature is, at its core, an information processing organization. The businesses of lawmaking, analysis, and oversight are all centered on the ability to process and disseminate information. In this information age, enhancing the ability to gather, process, and distribute increasing amounts of legislative information quickly and accurately is a necessity.

Technology is the primary tool used by the branch to collect, analyze, and disseminate information. Therefore, the Legislative Branch is dependent on its technology. When deciding how and for what purposes to use technology, it is critical to understand how it is incorporated into the Legislative Branch functions. There are extraordinary opportunities for applying technology to an organization whose main product is information. The Legislative Branch recognizes this and continues to invest in, apply, and realize significant benefits from IT.

Current State of Legislative Branch Information Technology

This section summarizes and self-assesses the current organizational and technical environment that supports IT processes and initiatives in the branch. The Legislative Branch uses a centralized internal IT staff for daily operations and developing, implementing, and maintaining the IT infrastructure. Because of the branch's 2-year business cycle and the operational necessity of not making major changes during a legislative session, the branch only has 18 months between sessions to make major enhancements. The branch must also take into consideration that a special session can be called at any time during those 18 months, taking away staff time to get infrastructure changes accomplished. The branch uses external IT resources (outsourcing) for major enhancements and to implement new technology for which the internal IT staff has not been trained. Often, the planned enhancements require more time than the IT staff has available, thus making outsourcing necessary. The branch also uses external resources for staff augmentation for session buildup and support.

Mission Statement

OLIT will evaluate, implement, and support information technology solutions to enable the legislative process and operational functions in the most effective and efficient manner.

Office of Legislative Information Technology (OLIT)

OLIT has 15 IT full-time employees and is organized into three sections: the Computer Systems Section (CSS), the Information Services Section (ISS), and the Network Services Section (NSS). The office is headed by the Legislative Branch Chief Information Officer (CIO).

Computer Systems Section (CSS)

CSS is composed of six full-time employees: one section manager, two systems analysts, and three programmer analysts. This section is responsible for the development, maintenance, and user support for all branch software.

Information Services Section (ISS)

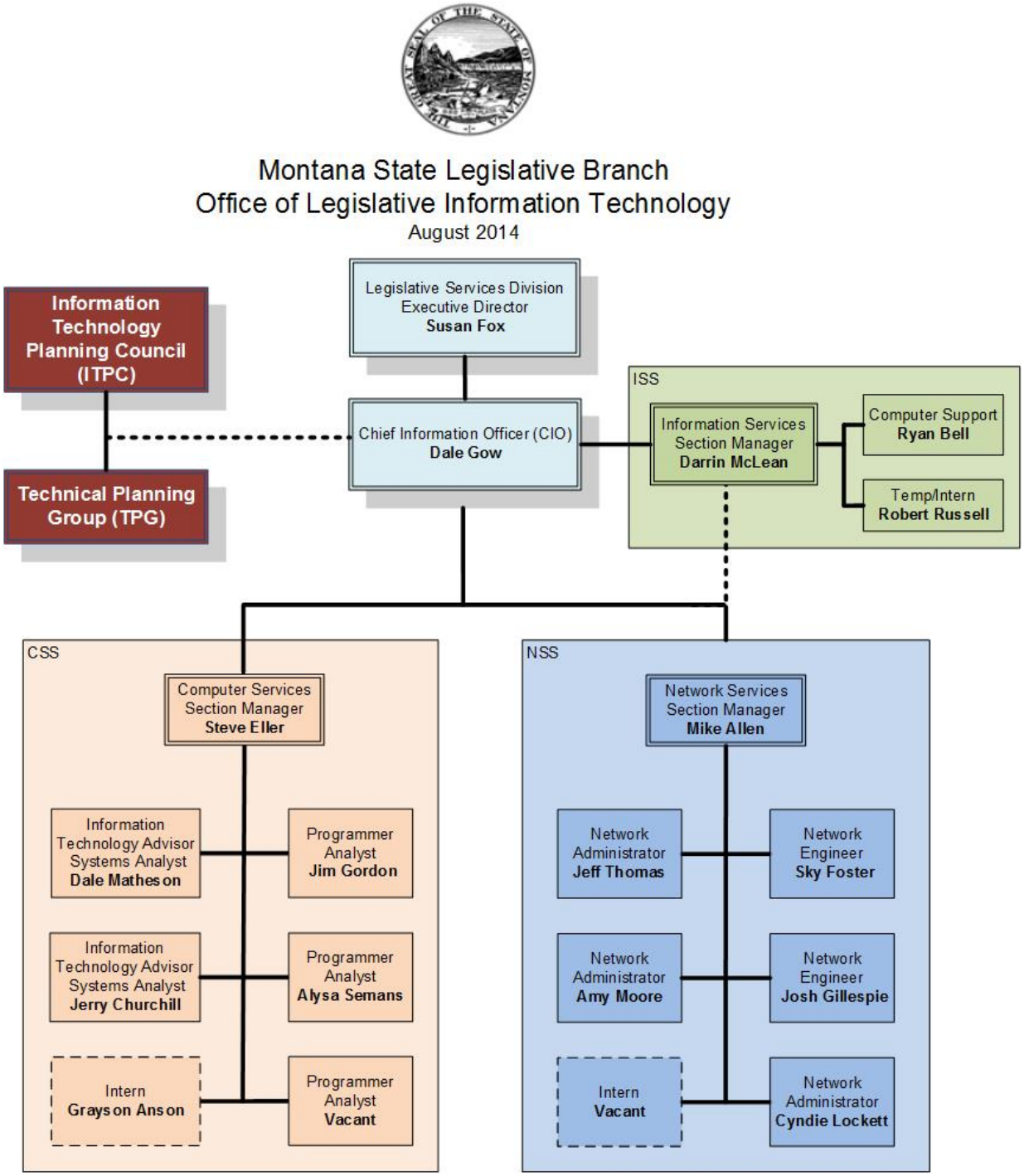
ISS is composed of two full-time employees: one section manager and one computer support technician. This section is responsible for the Legislative Enterprise Architecture Program, information security, quality assurance, project management, strategic planning, and the help desk operations.

Network Services Section (NSS)

NSS is composed of six full-time employees: one section manager, two network engineers, and three network administrators. NSS is responsible for designing, implementing, and supporting the branch's IT systems, which includes day-to-day operational and engineering support of physical and virtual network services, work stations, printers, and other related hardware.

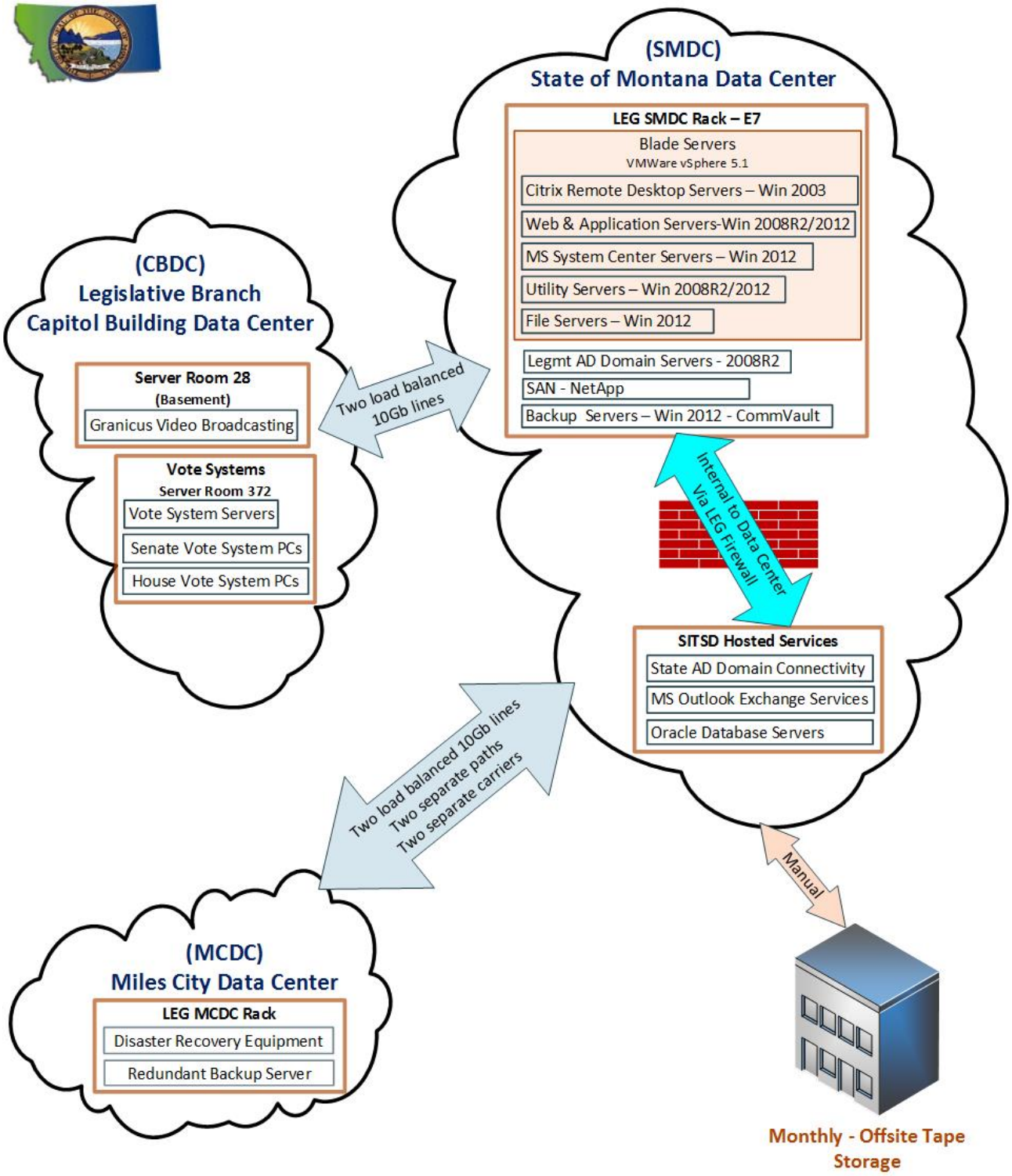
Office of Legislative Information Technology Organization Chart

In addition to an information technology plan, an appropriate IT organizational structure is necessary to effectively implement the goals of a plan. The following IT organizational structure has been established:



Legislative Branch Technical Environment

The high-level overview of the branch's technical environment is illustrated below. This shows the complexities of having multiple locations along with the robust backup and replication systems to ensure data integrity and security for the Legislative Branch.



Strengths, Weaknesses, Opportunities, and Threats Analysis

The Executive Summary discussed that the IT plan is based on an analysis that assesses the branch's information technology in terms of its Strengths, Weaknesses, Opportunities, and Threats, further described below. The following chart summarizes each of the assessment categories:

Strengths	Weaknesses
• Governance • Customer Service • Security Enhancements • Infrastructure • Applications • Legislator Environment	• Process Maturity • Training • Technology Modernization • Facilities • Inter-Branch Partnership
Opportunities	**Threats**
• Session Systems Replacement • Web Development • Document Management • Network Monitoring • Bring Your Own Device • Geographic Information • Multimedia • Data Management and Analytics	• Security Threats • Platform Skills • Unplanned Mandates

The Legislative Branch's SWOT assessment categories are detailed below in priority order.

Strengths

Accomplishments from 2014-2015 Biennium

During each biennium, the division directors, the Technical Planning Group (TPG), and the Legislative Enterprise Architecture Program (LEAP) Core Team prioritize projects that need to get accomplished for the upcoming biennium. This process is continuous and addresses planned technology initiatives as well as those that arise during the biennium between budget cycles. The following summarizes OLIT's strengths and accomplishments:

Branch IT Governance

The branch has a relatively mature and effective governance, manifested in a strong collaborative partnership between OLIT and the operating divisions. This is rooted in the

centralization initiatives and the operating model that followed. It has been enhanced and matured through the development and refinement of planning processes, operational management processes, and enterprise architecture governance, all of which integrate IT and the operating units.

Customer Service

The nature of the branch is one of organizations serving distinct missions, each having a unique set of challenges and needs with regard to IT. OLIT, through its tight integration with the business' operating divisions, has developed the capability to deliver a highly business-centric service model. OLIT is able to strike a balance between the benefits of operating a centralized, cohesive technology environment and delivering a tailored set of services to ensure each legislative organization is realizing the maximum value from the branch's IT resources and investment.

Security Enhancements

OLIT continues to make positive strides in information security. OLIT has implemented an initial/annual IT training program, which has raised the awareness of our user base. In addition, OLIT has completed the Governor's mandated System Administration, Audit Networking, and Security Institute (SANS) "*Securing the Human*" training, which further raises the IT staff's level of security comprehension. OLIT has migrated all Legislative Branch systems to Microsoft's Endpoint security software, which better aligns with our network architecture. In collaboration with the State Information Technology Services Division (SITSD), the Legislative Branch has also implemented new firewall modules to enhance our security posture. In addition, extensive work has been completed to update and secure the network environment, which has enabled us to implement secure wireless in the Capitol Complex. A secure enterprise-based network password repository project was also completed, which replaced the need for password lists and secure storage. These endeavors are just a few of the projects completed this biennium to ensure the strength of security in the Legislative Branch. As we move forward, the program will get more direction as we have filled the long-vacant Security Officer position.

Infrastructure Development

OLIT has progressively worked to ensure all facets of the Legislative Branch's IT infrastructure meet the user's current and future business requirements. The approach taken utilizes current technologies and best practices and principles, such as replacing our antiquated production and disaster recovery (DR) hardware environments. In conjunction with the new hardware infrastructure, we have implemented VMware's server virtualization software and the DR component to replicate our production environment. In an additional effort to increase our redundancy, we have implemented a new backup solution. The backup now works as a companion to our virtual server environment; it also replicates all of the branch's backups to an offsite location. All of the branch's production systems now reside in the State of Montana Data Center (SMDC), and our disaster recovery systems are in the Miles City Data Center (MCDC).

Application Development

OLIT continues to strive to keep application systems on vendor-supported technologies and remain responsive to our customer base. LFD is going through a significant replacement of software tools, which enables them to compile data received from the SABHRS data set. The IBARS upgrade, fiscal note system, and SABHRS data tools have all been modified from an outdated toolset. OLIT has analyzed and recommended database modifications, defined process improvements, and helped with the new functionality of the toolsets and processes. OLIT has also upgraded WordPerfect to better align with its extensive PerfectScript code, which is used for critical business functionality. The current version of WordPerfect is losing vendor support, and this project ensured that the lawmaking process will be maintained and supported through the 2015 session. Another major development was implementing and deploying a cloud-based Microsoft SharePoint site for data collaboration between business units.

Legislator Environment Enhancements

OLIT has increased the performance and stability of the legislator network environment through a series of enhancements and upgrades. All components of the House and Senate vote systems have been upgraded with new hardware and software, which has enhanced the the reliability and management of the vote systems. OLIT implemented a private network for legislator business to isolate legislators on their own network segment, ensuring that legislative business, bandwidth, and privacy needs are met. Legislator printing capabilities have also been upgraded to allow multi-platform device printing.

Weaknesses

Process Maturity

OLIT often operates like a small organization with ad hoc processes. However, the business of the Legislature is diverse, independent, and complex. Furthermore, the reliance on IT is ever increasing. In order to keep up with the pace of IT demand, maintain a secure and stable environment, and do so with a lean allocation of resources, OLIT technical processes cannot continue to perform at a low maturity level. Disciplines such as project management, change management, requirements management, configuration management, tactical planning, and the project intake process are all areas with maturity levels lower than industry standards would dictate and represent a source of drag on the organization's ability to deliver its various missions.

As the branch seeks to address its increasing business and technology challenges, it needs to also increase emphasis on continuous improvement and best practice adoption. The growing demands for electronic processing of information in the branch will require more complex systems and more sophistication in the management of technology and its integration with the legislative functions. These needs can only be served through greater process definition, standardization, and metrics-based performance management.

Technical Staff Training

There has been and continues to be a significant shift in technologies supporting the Legislative Branch as we upgrade legacy systems. With these changes there has been a lack of resource allocation and strategy with regard to training technical and business staff. This trend represents a weakness and a risk to the continued success of the IT operations. The lack of training strategy and resources will quickly become critical as the branch's IT environment migrates to modern platforms and as new technology replaces legacy platforms.

Technology Modernization

The branch remains behind in terms of technology modernization in key areas. Among these are the hardware, software, and database systems supporting session operations; however, these are scheduled and budgeted to be addressed with the execution of the Session Systems Replacement project. Other areas that are behind in modernization include analytical systems, mobile and web platforms, collaboration, multimedia, and document management. These challenges are being addressed within the IT roadmap. It is important that OLIT partner with and consult the business units on the capabilities and possibilities enabled by the application of trends in technology.

Facilities

The OLIT staff is housed in unstable, insecure, and less than adequate office space within the Capitol building. OLIT has in recent years adopted a model of working in the basement offices during session and in the third floor offices during the interim. This model presents multiple issues. First, the offices in the basement have safety and workplace quality concerns, including lack of natural light, flooding, air quality, and physical security. Likewise, the third floor offices are not physically designed, configured, or furnished to offer an efficient, effective, and quality workplace. Although accommodations from the Legislature have been made to move OLIT out of the basement during the interim, which has had a positive effect, the disruption of moving staff to and from the basement/third floor further exacerbates the lack of permanent, secure, and adequate workspace.

Inter-Branch Partnership

The relationship between the Legislative and Executive Branch technology operations has progressed, centered upon moving the Legislative IT infrastructure to the Executive Branch's state data center. Although the Legislative Branch will certainly reap benefits in reliability, security, and performance through this technology relocation, it also creates a greater inter-branch dependency. The relationship and service-level expectations of the Legislative Branch are not those of an Executive Branch agency but rather those of a co-equal governmental branch acting in the spirit of partnership. The clear understanding and fulfilling of this expectation in both relationship and service level needs to develop further through inter-branch communications, agreements, and governance processes.

Opportunities

Session Systems Replacement (SSR) Project

The SSR project represents an opportunity to improve session operations and the legislative process because of its scope and central position as one of the main systems in the branch. The platform on which this new system is built will effectively define the application platform to be leveraged in other related application system development and implementation projects. The LEAP team will further define detailed technology standards in coordination with the SSR project. To capitalize on this opportunity, OLIT must invest in training and hiring of staff and maximize knowledge transfer between the SSR project system integrator and OLIT application development staff.

Web Development and Content Management System

This project focuses on a major redesign of the Legislative Branch website and will use new technologies and programming language. The project emphasis will include a simplified interface, more efficient web-enabled browsing capability, a mobile-centric design, and improved search functions. In addition, this project will implement a new content management system with a robust and efficient process to publish web content, reducing the risk of posting incorrect content and providing a more uniform style for pages and links.

Enterprise Document Management/Archiving

The Legislative Branch, as with most government agencies, strives to foster openness in government through the presentation of information. The functions of the Legislative Branch have important historical and legal consequences. Because of the increased demand for electronically produced and stored information, the branch must consider the retention, organization, and retrieval of this information. This area is a mix of technical and business considerations.

Network/System Logging/Monitoring

The Legislature's IT environment lacks a robust network event/activity logging and monitoring capability. Enhancing this capability represents an opportunity to obtain a higher degree of visibility and control of the IT networking, computing, and storage resources. This capability will enable rigorous, proactive management of the entire environment's reliability, performance, and security.

Bring Your Own Device (BYOD)

BYOD is a trend in the management of IT resources. As applications increasingly move to cloud infrastructure and web-based human interfaces, and as the corresponding increase in network access ubiquity and speed progresses, there is less need to standardize at the end-user device layer. This trend is also important to the Legislative Branch because it has been a long-standing business practice to allow the lawmakers to choose their own devices and connect to the appropriate legislative systems during both session and the interim. The opportunity in this area is to further enable a variety of access devices, including various types and brands of laptops, tablets, smartphones, and so forth, to connect in a security-ware and appropriate manner, to the public and nonpublic legislative information systems. Expanding

this capability will offer more business user and public access to information and resources, thereby supporting the missions of the branch.

Geographic Information Systems (GIS)

The branch has an opportunity to utilize geographic (spatial) data and present the analysis in map form. Large amounts of the data that the branch deals with can be presented better in map form rather than in text or tables. When the data is presented in map form, the viewer can better grasp what the data is saying. The branch currently uses GIS in its support of redistricting, interim committee work, and auditing but has not tapped into its full potential as of yet. Another aspect of GIS use is the analysis of data by incorporating and interrelating spatial information. Integrating geographic data with other information can yield new perspectives and improve policymaking decisions.

Multimedia/Electronic Media

One of the main functions of the legislative divisions is the research, analysis, and dissemination of information. Traditionally, the output of these business functions has been printed-paper documents. The trends toward paperless publications, rich electronic content, and mobile computing have to be considered in the Legislative Branch's technology strategy. The expectations for tablet and other electronic means of displaying text are already emerging related to the documents published by and consumed by the branch. The support for and use of electronic mobile reading tablets for published documents will be more thoroughly studied. Areas to be examined will include the publication and formatting tools, rich content, indexing, devices, security, and support.

The use of interactive applications and video delivered electronically to a variety of devices, including personal computers, mobile devices, and televisions, is a growing trend and represents an opportunity to present information in a more usable format.

Although the decision to begin augmenting or replacing paper-based reports and pamphlets with applications and videos is a business decision, there are many technology implications of this trend. Other impacts and concerns include the support of various devices and formats, networking bandwidth capacity, configuration management, content management, and end-user support.

Data Management and Analytics

The information processes in the branch continue to increase in volume. The toolsets in the branch have generally not kept pace with the increase in the volume of data. The technology market has, in the meantime, developed tools to process and analyze large amounts of data. The categories of these types of tools include data warehousing, data analytics, data management, and business intelligence. Big data considerations notwithstanding, some of the presently recognized obsolete systems will require replacement with modern, enterprise-level data management and data analytic technologies to support the trending needs in audit analytics, financial analytics, and policy studies.

Threats (Risks)

Security Threats/Lack of Security Investment

Government information systems are increasingly targeted by hackers and criminals. The branch's security program has never fully developed or matured due to a lack of resources. Although this area continues to improve each biennium, the threat is outpacing the investment. If this trend is not broken, it will become increasingly likely that the branch will suffer a significant breach or negative event. As stated in the strengths section, we continue to make security an emphasis; during the next biennium, we are planning an independent audit of the program to further enhance our security posture.

Programming Skillset/Platform Change

Although the platform change driven by the SSR project is an opportunity, it also represents a threat. Because the skillsets and experience of the present staff are aligned with legacy platforms, there will be a need for training existing staff in and obtaining new staff with skills aligned with the new platform. There is a risk that the training and acquisition of talent will lag and productivity will decline. We plan to mitigate this risk by developing a long-term strategic training plan that corresponds with the 2017 Biennium IT Plan.

Unplanned Mandates

Due to the changing composition of the legislative body and its leadership, there is a threat of leadership-driven unplanned mandates consuming resources or otherwise becoming a distraction from the execution and realization of the branch's IT plan. To combat this risk, the branch has strong, participative, and communicative governance and planning and budgeting processes. As this process matures, the integration of business and IT session-cycle planning and interim period coordination will further mitigate this risk.

Legislative Information Technology Roadmap

Vision

The vision for OLIT is to:

- build and maintain alignment between business strategic vision and technology strategy;
- maintain modern, up-to-date technical platforms;
- conduct our operations with mature processes;
- be well staffed with qualified personnel;
- operate in a stable, secure, and quality workplace;
- manage a secure environment with auditing and logging;
- employ a diverse environment integrating mobile platforms; and
- partner with the Executive Branch in service to each branch's constitutional charter.

LEAP Principles

The Legislative Enterprise Architecture Program (LEAP) principles represent the vision for how the branch will plan, manage, and evolve its IT operations. OLIT, the divisions, and the legislative bodies use these principles as a compass to inform decisionmaking.

LEAP Principle 1

Organize information to enable its discovery and improve its meaningfulness.

LEAP Principle 2

Protect information in accordance with its business value, sensitivity, and longevity.

LEAP Principle 3

Invest in automation of business processes and modernization of systems to gain efficiency, improve business performance, and/or reduce business risk.

LEAP Principle 4

Maximize flexibility in design of business and technology solutions to adjust to change in business and technology environments.

LEAP Principle 5

Foster openness and participation in the legislative process, leveraging technology and overcoming Montana's geographic challenges.

LEAP Principle 6

Maximize the exchange of quality information by accommodating various media types and technology.

LEAP Principle 7

Promote the efficient use of resources by communicating and collaborating on policy, business operations, and information systems decisions throughout the branch as an enterprise.

LEAP Principle 8

Guide the implementation, use, and management of technology in alignment with the business by setting policy and establishing processes.

LEAP Principle 9

Foster education, learning, and comprehension of information through innovations and information presentation.

LEAP Principle 10

Design, implement, and manage information systems with rigor appropriate to the business value of the information.

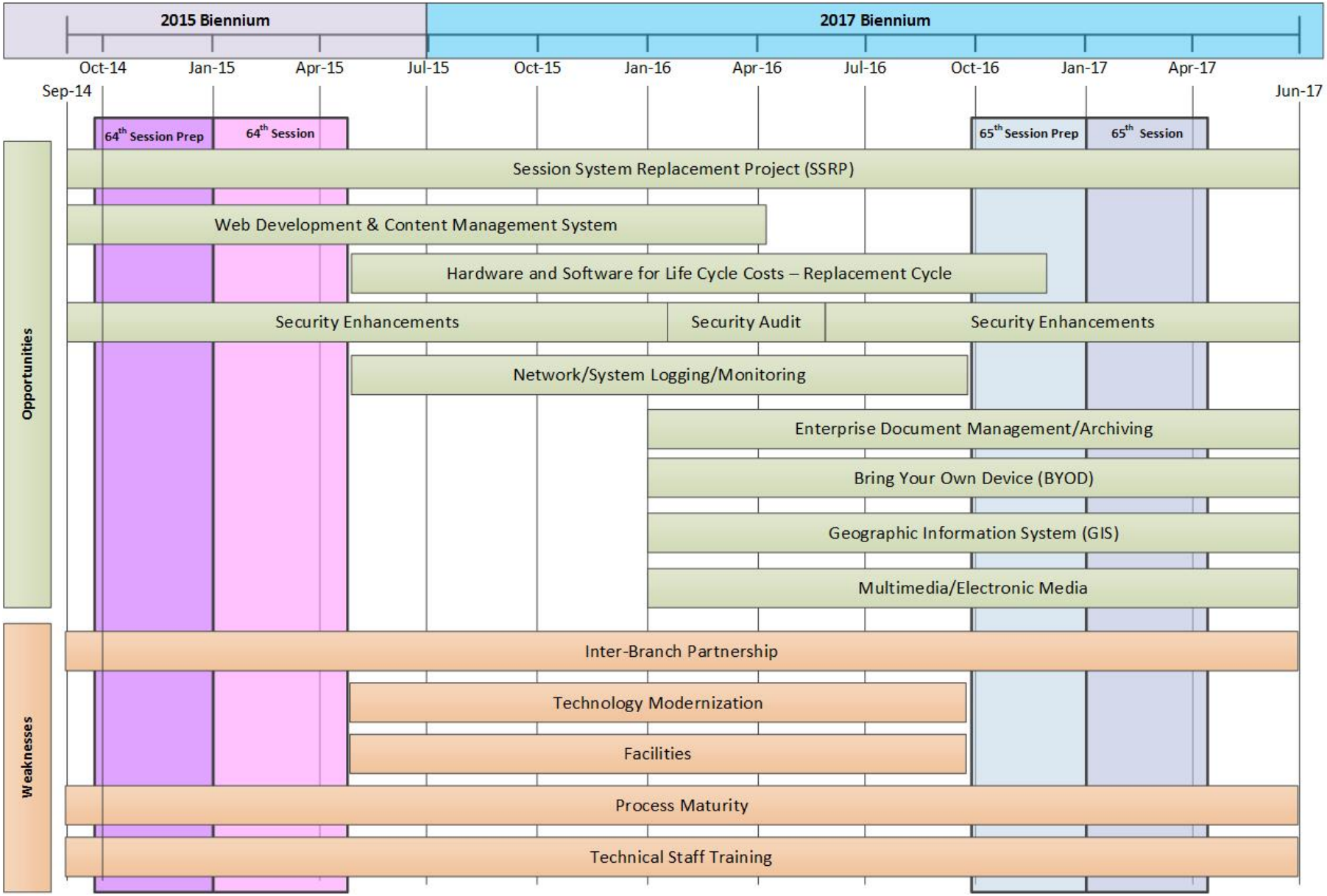
LEAP Principle 11

Maintain branch independence in core business functions.

LEAP Principle 12

Guard the integrity of all Legislative Branch functions by producing objective, nonpartisan information.

Legislative Branch Roadmap: 2015 and 2017 Bienniums



FY 2016-2017 Project Portfolio

This section outlines the proposed projects that OLIT will undertake during the 2017 biennium:

Session Systems Replacment

In 2013, the Legislature approved funding to replace many of our session and MCA publications-related systems. This is a major, enterprise-level business system replacement project to upgrade multiple aging systems, including process design, MCA/annotations, LAWS database, editor system, HB2 automation, engrossing and enrolling, and the MCA online system.

Web Development Tools and Website Redesign

The core technology used currently (classic ASP) has long been moved toward end of life by the vendor and is a dying technology in the industry. A project is being formulated to upgrade to a current programming language in conjunction with the Session Systems Replacement project. The web development environment will be modernized to improve its functionality and responsiveness for mobile-centric capabilities. It will also include an updated content management system.

Hardware/Software Replacement Cycle

The current computing environment is nearing our replacement cycle strategy. The project will enable the branch to customize the new systems and current hardware and software to take advantage of increasing technology demands and version upgrades.

Document Management System

The volume of data in the branch has grown exponentially in the past 10 years, which inhibits the branch's ability to manage data organization, retention, and retrieval. This project will allow the branch to develop tools to process and analyze large amounts of data.

Security Audit

The last major security audit for the Legislative Branch was conducted in 2004. As threats have evolved and the likelihood of an event increases, an independent audit of the branch's security posture is necessary. This project will partner the Legislative Branch with an independent entity to review the branch's security program and provide a detailed analysis of our vulnerabilities.

FY 2016-2017 Central Information Technology Budget Proposal

In order for the Legislative Branch to maintain the operational status of the current IT environment and complete the prioritized technology projects, OLIT performed a budget analysis and has presented the proposed budget in the IT plan. The table below describes the funding the branch will need for the operational duties as well as major projects the branch has identified for FY 2016-2017.

The IT Planning Council is requesting a present-law-centralized IT budget of $2,707,893 for the 2017 biennium.

FY 2016-2017 Legislative Branch IT Budget

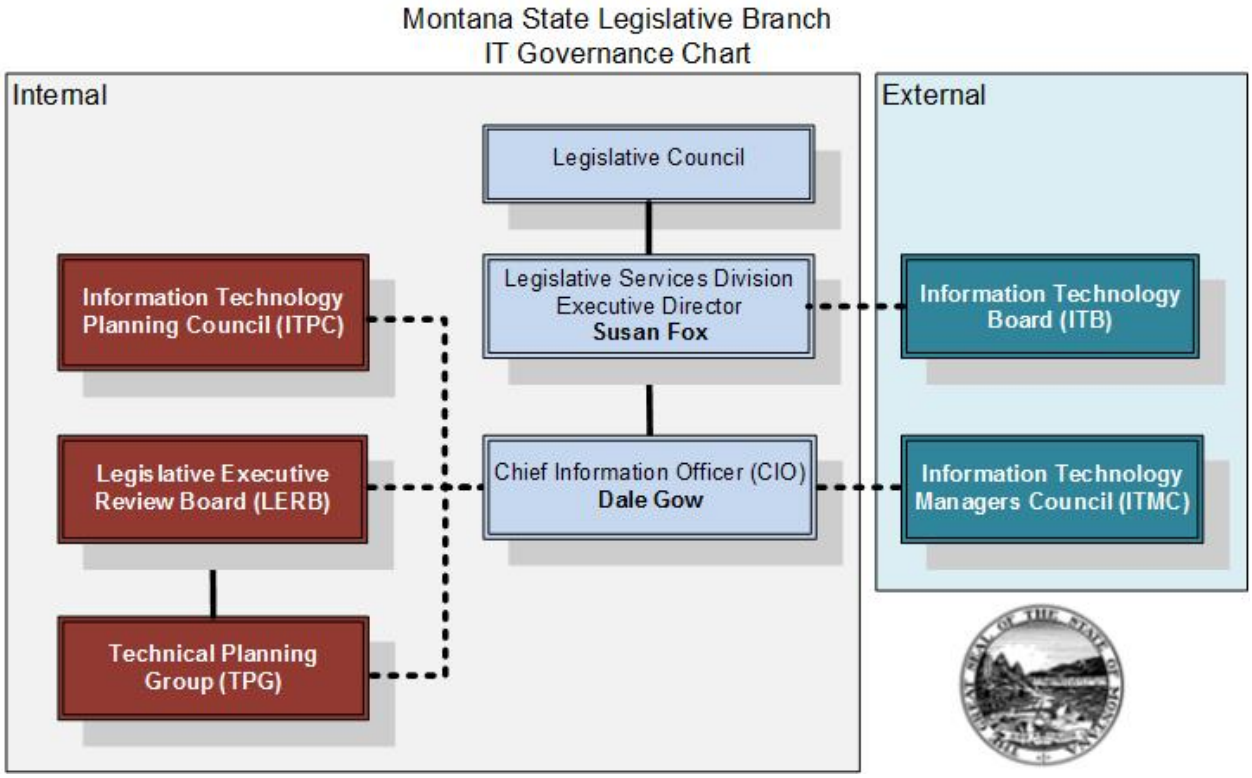
1. HB 2 Present Law: Budget to Maintain Current Operations		Biennial Budget
a.	Hardware and Software for Life Cycle Costs - Replacement Cycle	$775,000
b.	Hardware Maintenance and Supplies	$99,000
c.	Vote System Maintenance (2 Years)	$15,000
d.	ITSD Services	$977,073
e.	Interns/Temporary Help	$80,000
f.	Training	$80,000
g.	Audit IT Training	$20,000
h.	Manage Firewalls for the Branch (SITSD)	$10,000
i.	Contr: Network Support for Session Buildup	$65,740
j.	Contr: Network Engineering Support	$65,740
k.	Contr: LAD SABHRS	$20,000
l.	Contr: External Streaming Granicus Solution	$193,600
m.	Contr: LAWS Support	$65,740
n.	Contr: Session - Legislator Systems Support	$25,000
	Subtotal	$2,491,893
2. HB2 Present Law Projects Budget		
a.	Contr: Programming	$156,000
b.	Contr: Security Audit	$60,000
	Subtotal	$216,000
	Total, HB 2 Appropriations	$2,707,893

3. Legislative Branch IT Reserve Account		
a.	IT Proj: Responsive Website Redesign	$175,000
b.	IT Proj: Document Management System	$250,000
	Total, IT Reserve Account Appropriations	$425,000

4. Feed Bill for 64th Legislature: Legislator Support (will be considered by Legislative Council and future leadership)		64th Legislature
	Legislator Technology Allowance, $1,000 each	$120,000
	Total Feed Bill (HB 1) Appropriations	$120,000

IT Governance and IT Plan Management

The IT Planning Council is supported by several entities involved in developing, implementing, and maintaining IT resources within the Legislative Branch. These entities include the Office of Legislative Information Technology (OLIT), the Legislative Executive Review Board (LERB), the Technical Planning Group (TPG), and the Legislative Enterprise Architecture Program (LEAP). These groups coordinate on an ongoing basis regarding the implementation of the Legislative Branch IT Plan. They also work together to adjust and maintain the plan during the interim.



Internal Organizations

The following bodies work together to guide and manage the IT plans, decisions, and operations.

Legislative Council

To serve as the Legislature's approving authority for the Legislative Branch IT Plan and budget.

Information Technology Planning Council

To develop and maintain the Legislative Branch IT Plan and budget.

Legislative Executive Review Board

To provide executive guidance and decisions to the Legislative Branch regarding enterprise technology issues and investments.

Technical Planning Group

To assist the LSD Executive Director and OLIT staff in providing technical planning support to the Legislative Branch IT Planning Council.

External Organizations

The Legislative Branch also coordinates regularly with external organizations such as the Executive Branch, the Judicial Branch, the Montana University System, and local governments. This coordination is typically done through active participation on the following external IT groups:

Information Technology Board (ITB)

The ITB, created by the 2001 Legislature, provides a forum to guide state agencies and local governments in the development and deployment of intergovernmental IT resources. The ITB also advises the Department of Administration on statewide IT standards and policies, the state strategic IT plan, major IT budget requests, and rates and other charges for services established by the department.

Information Technology Managers Council (ITMC)

The ITMC, consisting of state IT managers, reviews statewide IT issues, provides feedback regarding information management policies, reviews opportunities for the application of new information processing technology, and participates in statewide IT planning efforts.

Planning Council Meetings

The IT Planning Council met four times during the 2013-2014 interim. The meeting agendas, minutes, and related materials are available for review on the Legislative Branch website at http://www.leg.mt.gov/css/Committees/interim.

Appendix A: Governance Membership

Legislative Branch Information Technology Planning Council

Susan Byorth Fox, Executive Director, Chair

Roger Webb, State Senator, Senate District No. 24, Term ends December 31, 2014

Kirt Wagoner, State Representative, House District No. 77, Term ends December 31, 2014

Marilyn Miller, Secretary of the Senate

Lindsey Grovom, Chief Clerk of the House

Amy Carlson, Legislative Fiscal Analyst & Director Legislative Fiscal Division

Tori Hunthausen, Legislative Auditor & Director Legislative Audit Division

Dale Gow, Legislative Branch CIO

Ron Baldwin, Executive Branch CIO, Information Technology Services Division

Legislative Executive Review Board

Susan Byorth Fox, Executive Director, Legislative Services Division

Amy Carlson, Legislative Fiscal Analyst & Director Legislative Fiscal Division

Tori Hunthausen, Legislative Auditor & Director Legislative Audit Division

Technical Planning Group

Mike Allen, Network Services Section Manager

Dale Gow, Chief Information Officer

Steve Eller, Computer Services Section Manager

Darrin McLean, Information Services Section Manager

Kent Rice, Legislative Audit Division Representative

Jennifer Simmons, Legislative Services Division Representative

Barb Smith, Legislative Fiscal Division Representative

Legislative Enterprise Architecture Program (LEAP) Core Team

Dale Gow, Chief Information Officer

Mike Allen, Network Services Section Manager

Steve Eller, Computer Services Section Manager

Darrin McLean, Information Services Section Manager

Appendix B: Legislative Enterprise Architecture Principles

LEAP Principle 1

Organize information to enable its discovery and improve its meaningfulness.

Rationale:

- Legislators, legislative staff, the public, and external agencies require the ability to locate information provided by the Legislature.
- The ability of the Legislature to produce usable information is critical to the furtherance of the role of the Legislative Branch as the provider of policy information.
- Getting the right information to the legislators at the right time enables sound policy decision making.
- The effective discovery and comprehension of information saves time and resources.
- By organizing information in proper context, the value of information can be increased.

Implication:

- Requires investment in the expertise and tools that enable the information to be searched, located, and utilized.
- Requires the branch to inventory and analyze its information to aid with its organization, indexing, and ability to be searched.
- Requires processes and effort to organize information and maintain it.

LEAP Principle 2

Protect information in accordance with its business value, sensitivity, and longevity.

Rationale:

- The branch accesses, processes, and keeps sensitive data, including regulated information, and has a legal responsibility to safeguard it from unauthorized access.
- The branch has statutory, policy, and business use requirements to retain information for various amounts of time up to indefinitely.
- There is business and legal risk associated with the loss or compromise of the branch's enterprise information.

Implication:

- Requires policies for the classification of information according to its value, sensitivity, and longevity (i.e., definition of public records, historical information, and sensitive information).
- Requires protection mechanisms to be implemented to safeguard the information's confidentiality, integrity, and availability.

- Requires infrastructure for the retention of information according to the established policies.

LEAP Principle 3

Invest in automation of business processes and modernization of systems to gain efficiency, improve business performance, and/or reduce business risk.

Rationale:

- The business of the Legislature is continually challenged to provide more services and to process increasing amounts of data.
- Many of the business functions of the branch are increasingly dependent upon the processing of large amounts of data. At the same time, there are rising expectations for quick responsiveness.
- Without automation, there is a finite amount of information processing capacity due to resource constraints and the natural limitation of human information handling.
- Information processing, storage, and access are increasingly related to business risk, including ceasing of operations, loss of public trust, litigation, and the waste of resources.
- Technology must not be implemented for technology's sake.

Implication:

- Requires the creation of an enterprise systems modernization plan incorporated into the Legislative Branch Information Technology Plan.
- Requires that all technology investments be justified in terms of business efficiency, business performance, and business risk.
- Requires that the branch consider the supportability and total cost of ownership in all automation efforts.
- Requires existing operations and systems to be continually evaluated in terms of risk, efficiency, and performance.

LEAP Principle 4

Maximize flexibility in design of business and technology solutions to adjust to change in business and technology environments.

Rationale:

- The branch must continually adjust to developments in technology as constituents, the legislators, and other agencies adopt the use of new technology.
- The branch must continually adjust to changes in the business functions internally and externally (i.e., Executive Branch, federal government).

Implication:

- Requires a continuous process for the integrated participation and input of business and IT personnel in the management and maintenance of the business and technical environments.

- Requires that adaptability and flexibility be designed into business and technical solutions.

LEAP Principle 5

Foster openness and participation in the legislative process, leveraging technology and overcoming Montana's geographic challenges.

Rationale:

- Montana's size and demographics present a challenge to keep the public informed and engaged in the legislative process.
- Legislators require distributed access to information and communications in the interim.
- Appropriate technology innovation can enable open, engaged, and informed dialogue.

Implication:

- Requires distributed and mobile systems for telecommunications, interaction, and information sharing.
- Requires branch IT support for geographically distributed users.
- Requires the branch to balance access to information with the maintenance of quality of information.

LEAP Principle 6

Maximize the exchange of quality information by accommodating various media types and technology.

Rationale:

- There is a continual adoption of information-sharing media types and technology used by the public, the legislators, and the Executive Branch.
- In order to remain effective, open, and participative, the branch must sensibly support new media types and technologies.

Implication:

- Requires branch systems to support communications and information exchange via a wide variety of formats and devices.
- Requires a continuous process to evaluate new media types to determine if they would enhance the exchange of quality information.
- The branch must balance the support of media types and technology with the organization's ability to effectively manage the information so that the quality of information exchange is not degraded.
- Requires the branch to consider the phasing out of declining media types and technologies with the careful consideration of the wide variety of experience, preferences, and skills in the legislative bodies, legislative staff, and the public.

LEAP Principle 7

Promote the efficient use of resources by communicating and collaborating on policy, business operations, and information systems decisions throughout the branch as an enterprise.

Rationale:

- The business functions within the various divisions of the branch are typically complementary and parallel (e.g., publication, analytics, research, facilitation, legal, and education all exist in each of the divisions).
- Acting as a single enterprise offers opportunities for economies of scale.
- Collaboration fosters continuous improvement and enables centers of excellence.
- Collaboration yields standardization, which enables integration and facilitates maintenance, operations, and support.
- Improved communication improves efficiencies by reducing duplicative work and avoiding the need for rework.

Implication:

- Requires the development and maintenance of consistent branchwide policies.
- Requires a process for the communication, vetting, and consideration of collaboration and coordination of initiatives.
- Requires the consideration of the whole enterprise when deciding solutions for business needs.
- Requires the creation and maintenance of enterprise process, information, and technology models.
- Requires the adherence to a strategic modernization plan that captures the future direction of the enterprise.

LEAP Principle 8

Guide the implementation, use, and management of technology in alignment with the business by setting policy and establishing processes.

Rationale:

- In order to maintain a balance between business integrity and keeping up with technology, the branch must be proactive and controlled in its adoption of technology.
- In order to effectively manage its operations given the complexity, diversity, and dynamism of its governance, the branch must act deliberately through the judicious application of policy implemented through defined processes.

Implication:

- Requires the development and maintenance of consistent, business-driven branchwide policies.
- Requires processes for the communication and training policies.
- Requires the creation and maintenance of enterprise process, information, and technology models.

- Requires the adherence to defined governance processes.
- Requires the development and adoption of standardized processes in the following areas:
    - Planning
    - Project management
    - Requirements management
    - Procurement
    - System implementation/development
    - Testing
    - Configuration management
    - Change management
    - Organizational change management
- Requires staff development in best practice application.

LEAP Principle 9

Foster education, learning, and comprehension of information through innovations and information presentation.

Rationale:

- The increase in complexity and scope of public policy requires the public and their policymakers to be informed on an expanding variety of issues.
- Legislative information can be highly complex, voluminous, and detailed. The branch strives to present information in a manner that makes it comprehensible and usable by both internal and external consumers.
- The rising reliance on and availability of large amounts of information used for evidence-based policymaking is driving the need for more sophistication in the public and their policymakers.
- Term limits result in loss of institutional knowledge and a lower average experience level in the legislative bodies, increasing the need for process and policy education.
- The branch employs a largely professional staff that requires ongoing training and certification.

Implication:

- Requires the investment in e-learning, knowledge-base, and learning management technology in the branch's educational and training functions.
- Requires examination of and further investment in e-learning, learning management, instructional design technologies, and related expertise.

LEAP Principle 10

Design, implement, and manage information systems with rigor appropriate to the business value of the information.

Rationale:

- The core functions of the branch are dependent upon the collection, processing, analysis, presentation, and communication of enterprise information.
- The systems used to process information must be chosen, designed, operated, and maintained in accordance with the value and scope of the related business functions.

Implication:

- Requires the classification and valuation of branch enterprise information and functions.
- Requires the investment in appropriately rigorous methods, technologies, and tools.
- Requires the branch to budget for appropriate levels of maintenance and operations resources when implementing new systems.

LEAP Principle 11

Maintain branch independence in core business functions.

Rationale:

- To ensure the integrity of the legislative process and the oversight responsibilities of the branch, the core business functions and their related systems must remain independent from the other branches of government.

Implication:

- Requires the branch to consider its constitutional charter as a co-equal and independent branch in its business and information systems decisions.

LEAP Principle 12

Guard the integrity of all Legislative Branch functions by producing objective, nonpartisan information.

Rationale:

- To ensure the integrity of the legislative process, the branch's analysis and presentation of information must remain impartial and evidence-based.

Implication:

- Requires the branch to authenticate sources, validate objectivity, and ensure the integrity of information it uses and produces.

Appendix C: Accomplishments

- Instituted a web content manager pilot project
- Created an online legislator lookup map
- Converted audio\video (AV) media to standard format
- Replaced portable scanners
- Instituted a new Oracle password repository
- Made changes to WordPerfect\PerfectScript
- Stood up a SharePoint site
- Installed and configured new backup system software and hardware
- Installed and configured state-of-the-art firewall modules
- Moved production servers and equipment to SMDC data center in Helena
- Installed and configured a new disaster recovery system and software
- Moved new disaster recovery system to data center in Miles City
- Configured legislative secure wireless access in Capitol Complex
- Configured legislator wireless printing capability
- Developed Outlook resource scheduling for rooms, projectors, and resources
- Upgraded WordPerfect
- Upgraded vote system servers, workstations and operating system software
- Replaced production system hardware (new SAN and blade center)
- Replaced virtual server environment replacement (VMware)
- Replaced client (computer) virus protection (Endpoint)
- Implemented a password management system
- Developed a Business Case Analysis (BCA) process development
- Upgraded the help desk system
- Developed initial and annual network security training program